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ABSTRACT

As part of its 1984 school reform initiative, the Maine legislature created the Innovative Education Grant Program. It was designed to act as a catalyst for new ideas, conceived by teachers and principals, to bring new energy to classrooms and schools. From April 1986 through June 1986, 278 programs were put into practice. Descriptions of 23 of the programs are provided in this sampler in the form of brief case studies; each description also lists the name and address of the person to contact for more information, the major category by discipline, and the amount of the grant. At the end of the booklet is an index of all the projects listed by major category, school system, school, whether it is a school or a classroom program, and whether a case study is available. (Case studies were written for all programs that received more than $4,000 in grant funds.) (MLF)

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A SAMPLER OF INNOVATIVE EDUCATION GRANTS 1985 TO 1986

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Innovative Grant Coordinator

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Judy Hamlin

Department of
Educational and Cultural Services
Augusta, Maine

Dear Colleagues,

In 1984 the State of Maine demonstrated its commitment to educational excellence with the passage of the Educational Reform Act. An integral piece of that legislation was the Innovative Educational Grant Program. Reflected in this legislation is the belief that when given the necessary resources, encouragement, and responsibility, those people closest to the educational process - the teachers and building principals - will develop programs that result in fresh approaches to schooling.

The overwhelming response to this program demonstrates the validity of this belief. The case studies in this booklet are representative of more than two hundred and fifty innovative educational grant programs that were put into practice during the past school year. As you read these case studies you will be encouraged, as was I, about the future of education in Maine.

I invite you to share with me the enthusiasm that has been generated by these programs and to use them as catalysts for your ideas for new approaches in your own schools.

Sincerely,

Richard W. Redmond

Richard W. Redmond
Commissioner

Introduction

As part of its 1984 school reform initiative, the Maine legislature created the Innovative Education Grant Program. It was designed to act as a catalyst for new ideas - conceived by teachers and principals - to bring new energy to our classrooms and schools. From April, 1985, through June, 1986, two hundred and seventy eight Innovative Education Grant programs were put into practice. From Fort Kent to Kittery and from Rangeley to Lubec, students engaged in programs developed by their teachers and administrators. Teachers worked with colleagues to plan new strategies for improving curriculum and instructional practices. These programs brought new energy to our schools, created enriched programs for students and new professional development opportunities for teachers and administrators. New partnerships were also formed.

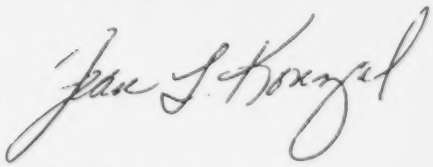
These new partnerships have fired the imaginations of those who've followed the progress of the innovative education projects. Teachers, working together, are expressing a new enthusiasm for the professional work they are doing. "I look forward to the opening of school this year with a new energy and excitement." noted one teacher engaged in planning a new program with her colleagues over the summer. Similarly, new energy has been injected into the school environment through partnerships that have developed with local arts organizations, museums, volunteer groups, businesses and state agencies. When individuals with different views of the world collaborate, new ideas emerge. The case studies that follow are examples of such collaboration and represent many other projects funded through this program.

Forming new partnerships is not easy. They require long hours and commitment to make them work. When asked for advice by new grant recipients, project directors said, "Be prepared to work many hours over and beyond what you planned . . . but it's worth it." One teacher said, "I never worked harder on any other project. I worked so hard on this project because I felt I had a responsibility to the State. I was honored to be chosen and to have the opportunity to put my idea into practice. I sincerely want to thank those responsible for giving me this opportunity." This grant program has been successful because of the hard work of all those involved in each of the projects. To all of you, a heartfelt thank you.

At the end of the booklet is an index of the projects. They are listed by the major category into which they fall. However, as you read the index remember that many of them are inter-disciplinary in nature. Those programs that received more than $4000 in grant funds have written case studies, as indicated in the index. If you are interested in knowing more about any of these programs, please contact the office of Innovative Educational Grants for copies of the case studies.

I hope that this booklet will spark new ideas and generate interest in participating in the grant program. All teachers in schools approved for tuition purposes and all such schools are eligible to apply. For further information write:

Innovative Educational Grant Program
Department of Educational
and Cultural Services
State House Station #23
Augusta, MAINE 04333



Jean L. Konzal
Innovative Grant Coordinator

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Architectural Heritage of York

York High School
York

The town of York, founded in the 1630s, is one of Maine's oldest communities. Examples of all periods in American architecture are still to be found in the town, and those old buildings represent a rich, virtually untapped educational resource. Architecture can encompass a wide range of subjects, including history, government, economics, literature, art, manual arts, and creative writing. **Architectural Heritage of York** is a yearlong program for eleventh grade students designed to connect the content of their required American history course to local history represented by structures in the community.

"Now that the architectural resources of the community are utilized as part of the curriculum, students seem to accept history a lot more readily."

History teachers, with the active support and involvement of members of the Old York Historical Society, developed slide shows, walking tours, floor plan activities, a time-line and bibliographies as resource materials. Representatives of the Historical Society visited the classroom at intervals throughout the school year to connect the history being taught to York's architectural heritage. Students learned how architecture reflects changes in social, technological, political and economic history. They experienced a sense of relevancy by examining local buildings as historical documents and by applying visually what they learned in their textbooks. By working with historic photographs and learning to read floor plans, students developed a clearer sense of social history as they analyzed how the use of rooms reveals past life-styles. They gained understanding of construction methods of different eras through demonstrations of antique tools. By working with a carpenter to create their own architectural features, they learned how tools and technology influence design. Through research into preservation issues and a classroom debate on an issue of historic preservation, they developed awareness of their civic responsibilities as future voters. Students saw what can happen to buildings if we are not concerned about the preservation of a community's architectural heritage. By placing their own homes on the time-line, they learned to analyze their town's growth patterns. This is an important issue in York, a community which has grown significantly in the past ten years and which continues to grow at a rapid rate.

Architectural Heritage of York has its roots in a Maine Humanities Council grant received several years ago as part of the Maine at Statehood Grant. The architectural component of that program was so well received that history teachers Richard Clark and Jeffrey Patten decided to develop a course to visually link the textbook with local architectural sites. They worked with the Old York Historical Society to develop a one-week program in April, 1985, then developed an innovative grant proposal to expand that into a full year program. In 1985-86, the project was taught to two hundred American History students of all academic abilities, including twenty special needs students.

The project succeeded in increasing student awareness of local architecture in the context of Maine and American history and in improving collaboration between the Old York Historical Society and the school department. According to a project teacher, "Now that the architectural resources of the community are utilized as part of the curriculum, students seem to accept history a lot more readily." They particularly enjoyed the session on *York as a Summer Resort, 1870-1920*, in which costumes were used to describe life-style. The project attracted the attention of the Maine Institute of Architects and was included on the program at a conference they sponsored in May. Several students worked for the Historical Society in the summer, leading architectural walking tours for the public.

This year less class time will be spent on the 17th century and more attention given to the contemporary

issue of preservation and town growth. Resource materials will continue to be acquired and included in the York High School's media center. Pre and post tests will also be developed to more accurately measure student achievement.

For More Information Contact:

Richard Clark
York High School
York, ME 03909
363-3621

$3,900 Classroom-Based Grant
Social Studies
Secondary

Big Books/Shared Reading

Plummer-Motz School
Falmouth

Big Books/Shared Reading is a program designed to use group reading to motivate children to read. During shared reading times, children develop confidence in their ability to read, share strategies which allow them to successfully decode, and take reading instruction from teachers using the very best in song, poetry and literature. At the Plummer-Motz School in Falmouth, **Big Books/Shared Reading** is used by all teachers in early kindergarten through grade three. Big Books are greatly enlarged versions (at least 18" x 24") of children's books. Both the text and the illustrations are enlarged, then displayed on a chart stand during group reading. During the oral reading, children can follow the text and observe the illustrations.

Interest in the program started in the summer of 1984, when two kindergarten teachers participated in a week-long training workshop. Their enthusiasm resulted in the use of Big Books in kindergarten the following year. Later on, kindergarten teacher Audrey Briggs gave an overview of the program to the rest of the faculty and other teachers visited the kindergarten classes to observe a lesson. When the possibility of Innovative Grant funds became known, teachers decided to work as a unit to add a shared reading component to the primary language arts curriculum. The grant was written and received in the spring of 1985.

A two day training session for all primary teachers was held the following September and the program implemented soon after. To augment their collection of Big Books, volunteers were recruited to enlarge books by hand. Volunteers included students in the high school parenting course, high school and elementary school art students, parents, and students. Many excellent books were prepared as a result of their efforts.

Teachers using Big Books met monthly to learn about newly acquired materials and to share activities which worked well for them. These meetings built a sense of confidence and excitement which was important to the success of the program.

A tea to recognize the work of the many volunteers was held in March. The many Big Books on display were evidence of the quality and quantity of the volunteer's work. The collection has grown so large that the school librarian will create a computerized catalogue of the materials available.

An evaluation was conducted at the end of the year to determine the effect of the program on children. An attitude survey indicated that no child lost self-esteem as a reader and that some children made strong gains in their perceptions of themselves as good readers. Testing in kindergarten indicated that 85% of the students gained a greater understanding of the conventions of reading. Test scores for comprehension and vocabulary in grades two and three were mixed. Teachers felt that progress should be monitored for another year as figures may have been influenced by children coming into the program mid-year and by a change in testing programs. Finally, teachers indicated real enthusiasm for the program. According to Audrey, that enthusiasm "is bound to mean a vital and growing whole language program this year."

For More Information Contact:

Audrey Briggs
Plummer-Motz School
Falmouth, ME 04105
781-3988

$4,675 Classroom-Based Grant
Reading/Language Arts
Elementary

Caldecott Reading Program

Asa Adams School
Orono

Betty Carr, a third grade teacher at Orono's Asa Adams School, took to heart a recommendation of the Governor's Conference on the Aspirations of Maine's Youth to broaden the experience of Maine's children. She felt that requiring students to read outstanding books would further that goal, while also improving their reading ability and instilling a love of reading. In her judgment, children were too often read to, shown the accompanying illustrations, then expected to read books on their own. The problem she noticed was that children only rarely followed through with the independent reading. She believed that requiring the reading of high quality, beautiful books would provide students with a richer experience.

The school year began with students reading, on average, at the second grade, first semester level in a basal text. By the end of the year, they were reading novels written at a fourth grade level of difficulty or higher.

The **Caldecott Reading Program** served nineteen third grade students in the middle reading group (Orono has three third grades and groups them into three ability groups for reading). Instead of using a basal reader, she wanted each child to read at least thirty outstanding picture books, followed by short novels and biographies, during the course of the school year. She selected books which were recipients of Caldecott Awards, an award given to the best picture book published in a particular year. The topics she chose to cover were: *Maine*; *Other Regions of the United States*; *Other Cultures and Folktales*; and *Other Times and Events*. She also wanted children to be able to identify the art medium used by the illustrator in each book; to gain an understanding of the art concepts of line, color, texture, shape, repetition, contrast and center of interest; and to grow in their ability to write and express themselves visually.

In preparation, she spent time with her students' second grade teacher ascertaining their reading level and learning style; with the school librarian to review the choice of available books; and in actually reading each book under consideration. Thirty titles were finally chosen and five copies of each were ordered. According to Betty, "Their arrival was enough to thrill any book lover, child lover, or art lover!"

Four reading groups were formed and the books rotated from group to group. Each day the children read a specified amount. Children were taught to write summaries of their reading, to ask one inferential question about the content and one question about the artwork, and to make an illustration of a favorite section. The written work was read and graded each night and returned to the children with positive comments.

During the day the teacher met with each group to discuss the pupils' questions, the characters and themes of the books, and to share the children's artwork. These discussions were the high point of the program. Questions such as "Why did they make a city out of the country?" and "What is the moral of this story?" stimulated many interesting discussions. The artwork was also savored and pupils learned how the illustrations were used to convey the feelings and impact of the stories. Finally, students checked their writing to be sure they correctly capitalized or punctuated their sentences, understood the meaning of specific words, or underlined the title of the book.

At these discussions, each child's previous day's work was collected and stored in his permanent folder. After reading ten books, they made covers and their work was stapled, bound and proudly taken home to share with parents. Art projects were also offered, including several large collage-type murals which were displayed in the school library.

The school year began with students reading, on average, at the second grade, first semester level in a basal text.

By the end of the year, they were reading novels written at a fourth grade level of difficulty or higher, such as Charlotte's Web, Pippi Longstocking, and books by Beverly Cleary. Achievement tests given in April also indicated that students were reading, on average, at the fourth grade, fifth semester level. The results demonstrate that outstanding books are an effective basis for teaching reading at the elementary level. Her success has convinced Betty to continue this approach with her third graders this year.

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Orono, ME 04473
866-5521

$2,000 Classroom-Based Grant
Reading/Language Arts
Elementary

Computer Applications in Pre-Vocational Special Education

Rockland District High School
SAD # 5 (Rockland)

Special education students at Rockland District High School are responsible for running the school store. They also operate a window washing business and run a washing service for athletic uniforms. The math skills they need to operate these businesses - to accurately record income and expenses, take inventory, "cash up" at the end of the day, etc. - are taught as part of a tenth grade Consumer Mathematics course. It seemed logical to Tom Jamrog, coordinator of the special education program at the school, to convert the manual records students kept to a computer-based electronic spread sheet.

Students were able to understand the basics of spreadsheet applications and to use mathematical concepts to solve real problems. Along the way, all students acquired basic computer literacy skills required for graduation and developed stronger self-concepts.

The process of maintaining and monitoring these files could comprise the principal part of the math curriculum. The fact that computer literacy is now a requirement for high school graduation for all students was also a stimulus for development of **Computer Applications in Pre-Vocational Special Education**.

Computers were already used by students for drill and practice activities, but the staff felt that providing activities which would simulate and parallel real experiences at the school store would be a valuable addition to the curriculum. A planning group of teachers and administrators searched for information on similar programs already in operation, but none were found. According to Tom, "It was both disheartening and exciting to slowly come to the conclusion that this truly was an Innovative Grant."

A search for appropriate software was conducted, various options reviewed and a final selection made. For the first half of the year, the teachers learned how to use the spreadsheet programs. Staff members attended a workshop on using spreadsheets, then taught themselves how to use the software they selected on weekends and evenings. In the third quarter, students were taught the vocabulary they would need, did activities on paper spreadsheets, and began integrating school store activities into their math class. By the start of the fourth quarter, they began work with spreadsheets.

At first, students used teacher-prepared worksheets and templates (teacher-made forms that serve as patterns on which to enter information through the computer) to become familiar with the software. They moved on to simple spreadsheet activities under close teacher supervision and then to working independently, even brainstorming ideas for applications which would solve their own problems.

The effort paid off: students were able to understand the basics of spreadsheet applications and to use mathematical concepts to solve real problems. Some students progressed to designing their own spreadsheets and learned the process so well that they served as trainers of other students. Along the way, all students acquired basic computer literacy skills required for graduation and developed stronger self-concepts.

Teachers also found that spreadsheets were excellent for keeping track of student achievement. A *Student of the Week* contest was run to motivate and reward students. Students entered data on themselves provided by the teachers, sorted it in rank order, printed it, and used another program to display the results in graph form. Finally, teachers became proficient with spreadsheet applications too, and used that knowledge to develop applications which simplified their record keeping chores. They also expressed greater satisfaction with the quality of the consumer math course than they felt previously.

Word of that success has spread rapidly. The staff has already made presentations about their program at the

1986 Maine Computes conference and at a conference on Best Practices in Special Education held at the University of Maine. They will also present their program at a national conference, Computer Technology for Special Education and Rehabilitation, in Minneapolis later this year. A paper about the project is also under consideration for publication by RuralLinc, a newsletter of the American Council on Rural Special Education.

This year **Computer Applications in Pre-Vocational Special Education** will be expanded to give students more opportunity to use spreadsheets, including uses in other areas of the curriculum and to more individual applications, such as personal financial planning.

For More Information Contact:

Tom Jamrog
Rockland District High School
Rockland, ME 04841
596-6411

$1,985 Classroom-Based Grant
Special Education/Mathematics
Secondary

Environmental Studies Project

Nokomis High School
SAD #48 (Newport)

With the richness and diversity of natural environments, students are cheated by being constrained in the classroom to carrying out routine, artifical lab exercises. Many students report a dislike for science courses, but respond enthusiastically when given a chance to participate in meaningful fieldwork activities. Fieldwork helps students develop an understanding and appreciation of environmental problems and their impact on all levels of life. It requires an integrated approach to learning which develops thinking and problem solving skills, something difficult to attain with a textbook-based curriculum.

First year results exceeded everyone's expectations. Don and Ken realized they had underestimated the abilities of their students and revised their objectives upward to make them more appropriate to the quality of the work performed.

The **Environmental Studies Project** at Nokomis High School offers students the opportunity to conduct primary scientific research. The research they do requires them to generate knowledge, manipulate data, and apply that data to the solution of a local problem. By working directly with scientists, they also gain firsthand information about careers they might otherwise be unaware of. Particularly for young women, these activities have provided direct experience in non-traditional career areas.

Planning for **ESP** began in October, 1984, when principal Ken Perry suggested that environmental education should get more attention in the curriculum. A planning team representing the various departments in the school developed the proposal and resource people from a variety of agencies and organizations helped design the activities. They included the Maine State Museum, Scott Paper Company, Nature Conservancy, Darling Marine Research Center, Maine Warden Service, and the Departments of Inland Fisheries & Wildlife, Marine Resources, and Environmental Protection. The strong cooperative relationships forged with these outside groups has been an important component of **ESP**.

ESP is not designed as a separate course for a few students. Students of all abilities, grades 9-12, are released from science class to participate in project activities. Their involvement might range from a few hours to many days over the course of the school year. In the past year, as many as two hundred students were involved in some aspect of the project, with about twenty students forming the core group of researchers. Their work was supervised by Don McDougal and Ken Smith, science teachers at Nokomis.

First year results exceeded everyone's expectations. Don and Ken realized they had underestimated the abilities of their students and revised their objectives upward to make them more appropriate to the quality of the work performed.

Students computerized and analyzed their field data to establish patterns and changes from previous data. They worked with the school's graphics department to produce high quality maps and publications illustrating their findings. They wrote and submitted reports to the proper agencies summarizing the data and conclusions reached. They gained the confidence and skills necessary to feel equally at ease in waders collecting field data or communicating with Commissioners of state agencies. Most of all, they learned to integrate their scientific, political and social knowledge into original, comprehensive plans of action. They also gained outdoor skills and developed new recreational interests as a result of their field study. In that sense, **ESP** turned out to be much more than just a science project. It requires students to use the full range of their capabilities and draw on their learning in every discipline in the curriculum.

The success of **Environmental Studies** has created some problems within the school however. The largest

of these concern student release time for field work. Since project activities only rarely conform to the traditional fifty minute class schedule, students miss class time in other courses to participate in the field-work. Other teachers in the building are concerned about that and have expressed some reservations about the program. As a result, several changes will be made this year. More fieldwork will be conducted on the school campus, reducing the time required for travel (for example, plans are being made with the Department of Inland Fisheries & Wildlife to build a warm water fisheries research facility as part of a pond adjacent to the school). An additional four teachers (not necessarily from the science department) will become involved with the project. Their involvement should help build support for **ESP** among other faculty members.

The long-range goal is to have **Environmental Studies** completely integrated into the curriculum of the school. In the future, students may be required to conduct an original research project much as they are now required to do book reports or term papers. The report would be part of their English course; maps and illustrations part of their graphics or art course; work with government agencies part of social studies; and calculations and work with computer databases or spreadsheets part of math.

Student Projects Completed in 1985-86

- *Reintroduced smelts into Sebasticook Lake;*
- *Monitored phosphate levels in tributaries of the Sebasticook River;*
- *Operated a weather station for the New England Plant & Soils Laboratory;*
- *Completed an 8.5 mile survey of the Sebasticook River with error less than 4%;*
- *Cataloged and computerized local historical records;*
- *Monitored growth rates of fall forage test plots;*
- *Surveyed prehistoric settlements;*
- *Monitored the incidence of viral diseases in fish populations of local lakes;*
- *Expanded the migratory waterfowl nestbox program;*
- *Completed aerial photography of half of Sebasticook Lake at drawdown;*
- *Conducted documentary research to locate records of a 19th century cemetary;*
- *Gave slide shows at area junior high schools explaining the environmental program at Nokomis.*

For More Information Contact:

Donald MacDougal
Nokomis High School
Newport, ME 04953
363-4354

$13,198 School-Based Grant
Science
Secondary

Foundations

Pond Cove School
Cape Elizabeth

Foundations is a teacher training program for integrating the arts in the elementary school. All students in grades K-3 are involved in learning experiences in the visual, performing and literary arts, emphasizing integrated work both within the arts and with other academic areas. The integrated curriculum takes place during the regular school day and in a special school-wide curriculum theme project. **Foundations** demonstrates the pedagogy of creative dramatics, narrative drawing, eurythmics and poetry writing to teachers in short residencies, followed by workshops in specific techniques. Training in writing lesson plans utilizing creative processes and products thinking skills objectives include productivity, fluency, originality and flexibility. Teachers also get training in how to use works of art for instruction in the thinking skills of observing, comparing, summarizing, interpreting and problem solving.

Arts are not "add-ons" to the curriculum, but developmentally appropriate vehicles for approaching content, for teaching language skills and gross and fine motor skills in a vital manner, and for moving students cognitively from concrete experience to abstract thought.

Foundations had its origins in a year-long assessment of Cape Elizabeth's gifted and talented program conducted in 1983-84. The comprehensive plan produced as a result of that assessment became the cornerstone for development of **Foundations**. The project was designed to address both the need for a sequential elementary school arts curriculum, and the need for early elementary gifted education in the arts and other academics; both are mandates of the Educational Reform Act of 1984.

Prior to **Foundations**, Cape Elizabeth students received forty-five minutes a week each of art and music instruction. The planners strongly believed that this was not sufficient time to truly involve students in the three fold aspects of arts learning: the history of the art form, its aesthetic dimension, and the process of creation. They also believed that arts could be the vehicle for providing a more integrated approach to the entire elementary curriculum. **Foundations** is designed so that the arts are not "add-ons" to the curriculum, but developmentally appropriate vehicles for approaching content, for teaching language skills and gross and fine motor skills in a vital manner, and for moving students cognitively from concrete experience to abstract thought.

Strong teacher support for the program was evident from the beginning: nearly all of the twenty-two faculty members were interested in participating in the program. During the year, artist-led residencies in creative dramatics, poetry, eurythmics and narrative drawing were conducted for both teachers and students. Additional workshops for teachers on how to write lesson plans to teach high level thinking skills and on using art works for teaching the thinking skills of observing, comparing, classifying, hypothesizing, interpreting, summarizing and problem-solving were also offered.

The culminating activity took place in May. The school-wide curriculum program *Children Who Live By the Sea*, demonstrated the integrative approaches to curriculum over a three week period. Students and teachers used music and creative dramatics to make the science, social studies, and literature of the sea come alive. In various performances, creative dramatists acted out the story of the Acadian people, told Mexican folktales and New England sea legends, compared life on the New England coast in 1836 and 1986, and interpreted the story of Scuffy, The Sea Dog. In sea chanties, first graders hauled the halyards of tall ships and kindergartners portrayed the creatures they had found in nearby tidepools. Children in all grades wrote and illustrated books on undersea creatures, sand castles, sea uglies, trolls and sea monsters. Students observed and compared seascapes by various artists. They drew and wrote about

the objects they found on their science walks on Little Diamond Island.

At the end of the school year, the Pond Cove faculty met to assess the strengths and weaknesses of **Foundations**. There was strong consensus of support for the program and a desire to continue to expand it in the coming year. They particularly liked the collegial attitude toward professional development created at the school as a result of their involvement with the project. They also realized that there is still much work to be done to fully incorporate their learning into classroom practice, and a need for more assistance and coaching as they adapt these approaches in their classrooms. Community members and the Cape Elizabeth School Committee have also been very supportive, as evidenced by the local funds they appropriated to continue the program in the coming year.

Note:

A companion project for grades 4-6, **Studio 456: Wordworks**, also received innovative grant funding. It offers students intensive mini-courses in visual, performing and literary arts which are closely integrated with the language arts curriculum at those grade levels.

For More Information Contact:

Mary Jo Thompson
Pond Cove Elementary School
Cape Elizabeth, ME 04107
799-7339

$4,894 School-Based Grant
Arts
Elementary

Lend an Apple to a Teacher

Gorham School Department
Gorham

The widespread introduction of computers into schools has created an enormous need for teacher training. Teachers must be knowledgeable about the use of technology and familiar with the variety of software available before they can be expected to integrate computers into their classrooms.

"Direct classroom instruction, no matter how well done, will not easily give teachers the confidence and skills they need to move beyond a beginner's level of computer use. Teachers need extended time to learn to use computers on their own terms and access to support when problems are encountered."

Like many other districts, Gorham provided introductory workshops for teachers to orient them to the use of computers. Most were scheduled after school and recertification credits were offered for participation. However, nagging doubts soon arose about the effectiveness of this approach, especially for elementary teachers. These teachers were scattered among four buildings and couldn't leave their schools until 3:45 pm. This required workshops to run late into the afternoon, a time when most teachers are tired. Access to computers in the elementary schools - and to people who could provide help when needed - was also difficult. **Lend an Apple to a Teacher** grew out of a need to find a more effective way to run computer inservice for teachers.

Their solution was to acquire computers and software that teachers could "own" during the life of the grant, computers that could be taken home evenings, weekends and during school vacations. In exchange for "owning" a computer, the two participating elementary teachers agreed to establish core curriculum projects in their buildings, engage in at least one hundred hours of guided practice, and to serve as a resource to other teachers in their buildings. Another feature of the project was the link between the project director, Wally Ziko, and participating teachers via computer modems and telephone lines. Wally had an extension phone installed in this classroom to enable him (and his computer) to communciate directly with the teachers (and their computers) in the elementary buildings. The idea was to provide teachers with immediate help when they encountered problems with their hardware or software. The system would allow them to send messages or samples of student work directly to Wally; he would be able to respond the same day with suggested solutions.

As it turned out, the project was very successful at broadening and deepening the computer skills of the two pilot teachers. For example, project teachers now have the skill and confidence to evaluate new educational software, learn to use it, and apply it in their classrooms without depending on outside help. They also developed curriculum units geared to specific software. The units are on file in the library of each school and include all the information other teachers need to use them in their own classrooms. Finally, Gorham now has well trained people at two of its elementary schools to act as resources for other teachers interested in the use of instructional technology.

The only part of the project that didn't work was the modem support component: many difficulties were encountered in trying to get both the hardware and software to function correctly. The phone system in the school was so busy that it interfered with teacher attempts to link their computers electronically. This problem was compounded by very complicated software and undecipherable documentation. Having the phone line in the classroom was still a good idea though: Wally could communicate directly with teachers when they had questions. They just couldn't exchange data from one computer to another. This year a dedicated line will be added for the transmission of computer data only.

In Wally's opinion, "Direct classroom instruction, no matter how well done, will not easily give teachers the confidence and skills they need to move beyond a

beginner's level of computer use. Teachers need extended time to learn to use computers on their own terms and access to support when problems are encountered." Gorham's administrators are heeding that advice: **Lend an Apple to a Teacher** will continue to be an important part of Gorham's inservice education program in the coming year.

For More Information Contact:

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Shaw Junior High School
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$4,920 Classroom-Based Grant
Staff Development
Elementary/Secondary

Lifting Education & Developing Staff (LEADS)

School Administrative District # 6
West Buxton

With 4,300 students in twelve schools, SAD #6, (Buxton, Hollis, Limington and Standish) is Maine's largest School Administrative District. The geography of the district, as well as its growing student population, accentuated the need for staff to improve channels of communication concerning individual school and district-wide needs. The arrival of a new superintendent and assistant superintendent in 1984 offered the opportunity to promote a philosophy of mutual trust where both teachers and administrators would strive to build a supportive relationship in seeking solutions to these needs.

There is a new spirit and enthusiasm at work in SAD #6. Teachers feel empowered in their new role as collaborative decision makers, administrators feel they are getting more cooperation from staff, and the synergy resulting from both groups working together has greatly improved the organizational climate in the district.

Assistant Superintendent Ron Barker took the initiative by pursuing development of a comprehensive staff development system for the district. His goal was to establish a structure for involving teachers and administrators in the process of identifying needs, establishing goals, and planning improvement activities to meet those goals. He wanted teachers to assume greater responsibility for their own professional growth and to mobilize the diverse talents of the staff to address needs at both the building and district level. He did not want a staff development system that only involved teachers in selecting dates for inservice days or chosing presenters for workshops. For his plan to work, teachers would have to become full partners in the school improvement process.

The initial problem was finding someone with the expertise to guide them through the development stage, someone with experience in staff development and a person perceived as neutral by both teachers and administrators. Ron learned that the Maine Facilitator Center planned to offer the services of Susan Doughty, a staff development specialist, on a contract basis to Maine school districts. Plans were then made to contract for fifty-five days of Susan's time as part of the grant proposal.

After the grant was received, a group of teachers and administrators met in the summer to plan project activities. The planning group made a presentation outlining the intent of the project to all staff at the start of the school year. Informational meetings in each building followed in September. At those meetings, additional details of the plan were presented and faculties of each building were encouraged to apply for consideration as a participating building. As a result of teacher votes in each building, nine of the twelve schools elected to become part of the project and formed building level staff development teams. Representatives from each of these buildings, a representative of the itinerant teachers, four members of the administrative team, and a school board member formed a district team. That structure - a district level team responsible for overall coordination and individual building teams responsible for work in each school - became the basis of SAD #6's staff development system.

The district staff development team then received training in the use of a variety of assessment instruments and techniques. Assessments of both strengths and needs were conducted at the building level. Individual building teams met with the staff development specialist during the course of the school year for assistance in interpreting data gathered from the assessment, developing goal statements, creating action plans and becoming more informed about available resources. Attention was also given to becoming more skillful at running team meetings, being aware of group process and its impact on how a team functions, and involving and informing colleagues.

The district staff development team developed their own plan of action for the following school year. That plan addresses use of inservice days, allocation of staff development funds, involvement of the three remaining buildings in the project, promotion of district-wide communication and the implementation of the new legislation. The district team also reviewed all building-based action plans in order to provide support for buildings and to coordinate activities when buildings state similar goals.

Staff from SAD #6 who have participated in this project see the potential for using the process they have been through as one that can be duplicated and refined. It will help teachers and administrators collaboratively plan and carry out meaningful school improvement activities as well as build a positive climate.

The process has worked extremely well. The results of an outside evaluation revealed that there is a new spirit and enthusiasm at work in SAD #6. Teachers feel empowered in their new role as collaborative decision makers, administrators feel they are getting more cooperation from staff, and the synergy resulting from both groups working together has greatly improved the organizational climate in the district.

That success is evident in the comments made by project participants and in Ron Barker's assertation, "This project certainly has been one of the most rewarding professional experiences in my twenty years in education."

LEADS will continue grow and mature. This year, the three remaining buildings will become part of the system and more leadership will be assumed by district personnel, especially teachers. Support from the district's School Board is strong and the district is now in an excellent position to respond to the demands of the new certification law and the Educational Reform Act.

Staff Reaction to LEADS:

LEADS has given the staff an attitude of positive achievement, that "we can do something" and achieve some positive results. Now there is a real gung-ho attitude.

It has given us specific things to work on and a way to deal with things we needed to work with. I'm not sure we knew our strengths and weaknesses before.

The amount of support there was in each school and the amount of feedback from the process was far more than we ever expected.

LEADS has restored my confidence of how much teachers will do if we give them the opportunity. Sometimes we think (administrators) know everything.

My understanding of staff development has changed. I thought staff development was setting up five inservice days. Now I realize that is only a part of it; staff development goes far beyond that.

I've learned it's possible to do anything. You are only limited by the goals you set.

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$8,962 School-Based Grant
Staff Development
Elementary/Secondary

Mainstreamed Education for Hearing Impaired Students

Freeport Public Schools
Freeport

Among the 1200 students in the Freeport Public Schools are five hearing impaired students who require the use of special amplification equipment in the classroom. Two students have profound hearing losses and use Cued Speech interpreters within the classroom to provide completely unambiguous lip and speech reading of the English language. (Cued Speech is a phonemic respresentation of English in which hand signals and lip movements are used simultaneously to clarify speech sounds.)

There were three specific needs which led to the development of **Mainstreamed Education for Hearing Impaired Students**. The first need was for accurate information about the development and acquisition of language skills by students. They had no reliable or valid tests to use to reinforce their professional observations and intuition. They wanted to acquire tests which would allow them to accurately diagnose instructional levels and prescribe activities appropriate to the needs of each student. They also had a need for staff and student training in the use of Cued Speech and the proper use of in-class interpreters. Finally, they wanted to use computer technology to enable students to "see" how their voices sound rather than relying on subjective and inconsistant feedback from themselves and others.

Staff consulted with experts at the Baxter School for the Deaf before acquiring tests appropriate for their needs. These tests were used to measure general intelligence, comprehension of spoken and written language, and use of residual hearing and articulation. The results were used when writing each student's Individual Education Plan and in annual reviews of student achievement. The tests were also made available to Special Education Directors in other districts in the southern Maine area . According to Susan Fitzgerald, "We had five requests for the use of the materials from other districts. It was enjoyable and informative to work with other speech/language clinicians and provided a chance for mutual consultation on sometimes difficult cases."

Training in the use of Cued Speech was provided by Barbara Williams, Director of Cued Speech Programs at Gallaudet College in Washington, D.C. She also counseled parents, met with classroom teachers, and provided a comprehensive evaluation of Freeport's programs and interpreters.

Finally, a Visi-Pitch instrument was acquired and connected to an existing micro-computer. The Visi-Pitch synthesizes speech and provides an on-screen tracing of the pitch and volume of the voice. The students' tracings can be compared to a model tracing and voice adjustments made to more closely align their tracing to the model. Statistics are given which measure the loudness and pitch levels to provide an objective means of measuring progress. Students used the Visi-Pitch as part of their regular speech/language therapy session. It enabled a first grade student to learn what was meant by "use a lower voice pitch" and "don't talk so loudly" - concepts which were previously incomprehensible to the deaf student.

Mainstreamed Education for Hearing Impaired Students has improved Freeport's ability to meet the needs of its hearing impaired students without removing them from the regular classroom. The program will be continued next year and the use of the Visi-Pitch expanded to help diagnose voice disorders and aid in foreign language pronunciation.

For More Information Contact:

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$4,881 Classroom-Based Grant
Special Education
Elementary/Secondary

Middle School Alternative Program

Portland Public Schools
Portland

The **Middle School Alternative Program (M.A.P.)** provides a supportive curriculum which encourages changes in student attitudes toward themselves and toward school. The program was designed to meet the needs of grade 6-8 students performing well below their ability academically, socially, and behaviorally and who have not been successful in the regular middle school program. Most of these students are not eligible for special education or have mild special education needs.

Active learning is a major component of the curriculum. Students are often involved in field trips, classroom experiments, projects, speakers and community activities. A Cultural Journalism project involved students in the writing and production of a magazine.

M.A.P. began in 1985 with twenty-one students drawn from Portland's three middle schools, two teachers and a teacher assistant. Students selected for **M.A.P.** are potential drop-outs. They often have low self-esteem, are frequently absent, perform below their ability academically, lack emotional commitment to the school or others, and exhibit hostility toward adults and authority figures. **M.A.P.** is the first middle school alternative program in Portland. It is based on the assumption that middle school programs are more powerful interventions, particularly when combined with alternative programs for ninth and tenth graders, than are high school alternative programs offered in isolation.

A major factor in the success of **M.A.P.** is its highly structured behavior management system. Students must exhibit appropriate behavior (e.g. raise their hand, remain on task, use appropriate language and remain in their seat) to earn points. A specific number of points are required for students to participate in special projects, field trips and recreational activities. Thus, the student learns to be responsible for his or her own behavior and exhibit appropriate behavior to participate in special school functions.

The behavior management system creates a classroom environment for effective instruction. Academically, **M.A.P.**'s curriculum closely parallels Portland's other middle schools, but is unique in its approach to motivating students and providing them with the opportunity for success.

Students are divided into groups according to their skills rather than by grade levels. This helps reduce tension and frustration in students who might otherwise be misgrouped. A student/teacher ratio of 9:1 allows for close monitoring of student progress and time for individual meetings with each student.

Active learning is a major component of the curriculum. Students are often involved in field trips, classroom experiments, projects, speakers and community activities. A Cultural Journalism project involved students in the writing and production of a magazine. Students selected topics of interest, interviewed appropriate people to get the necessary information, took photographs and wrote articles to accompany the photographs. Cultural Journalism required students to integrate and apply their academic skills, rekindled their desire to learn, and was a great boost to their self-esteem.

An Outward Bound component of the program was also important to its success. In addition to day hikes, canoe trips and overnight camping trips, students participated in a ropes course and group challenges at the Chewonki Environmental Educational Foundation in Wiscasset. Since students must rely on each other to be successful, these activities foster positive group interactions, cooperation and good communication skills.

The **M.A.P.** project has produced real gains in student behavior and productivity. Student grades and achieve-

ment test scores showed significant improvement and 95% of the students finished the school year. Parent response has also been very positive. One boy, truant for the entire first month of school, got a job through the Summer Youth Program. He never missed a single day of work (often arriving early), demonstrated excellent responsibility, and was made a foreman in charge of his peers.

The **Middle School Alternative Program** has made a significant impact on the disaffected students it serves. **M.A.P.** is proof that a well structured behavior management system, coupled with individual teacher attention and an interactive curriculum, can produce real change in the attitude and achievement of students who were heretofore likely to drop out of school.

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$17,466 School-Based Grant
Alternative Programs
Secondary

PEER: Partners Engaged in Educational Research

Lincoln School
Augusta

Staff members of the Augusta's Lincoln School recognized that as citizens of the Information Age, today's students must acquire skills which enable them to locate, manage, analyze, and use vast amounts of data. They realized that "library skills" now include using the computer as an information processing tool. They had seen computers used for drill and practice, for computer literacy, and for tutorials. It was much more difficult to find computers being used to help students discover that they can control, create, produce, think, solve, contribute, share, learn with computers. Student use of such tool programs as word processors, data base management systems, and electronic spreadsheets was almost nonexistent below ninth grade.

The project specified that students would learn to design, create and use electronic data bases. They would do research in social studies and science using library resources, and use the computer as an information management device as well as a tool by which to test hypotheses.

Six teachers in grades three, four and five, and the media specialist saw this as an appropriate and exciting challenge. Why not include computers as student controlled tools for learning? They felt that elementary students could learn to use word processing and data base management programs as they learned library skills, social studies, and science concepts. Teachers, could then experience computers as valuable components in core curriculum rather that as a support tool or as a separate curriculum. These staff members planned this project by reading, discussion, and contacting resource persons in Maine as well as in other states. They soon realized how truly innovative it was to put such young students in control of information technology.

PEER's goals included the development of skills in using the computer as a tool for both teachers and students, as well as improvement of students' study and library skills. The project specified that students would learn to design, create and use electronic data bases. They would do research in social studies and science using library resources, and use the computer as an information management device as well as a tool by which to test hypotheses.

The teachers involved in the project participated in four days of training spaced throughout the year from November through April. During this time, they also met regularly with media specialist Audrey Conant, who served as coordinator for **PEER**. The training time included hands-on work with data bases, discussions, brainstorming, shared problem solving, and work with curriculum design. Though initially shy about using computers, the team quickly overcame their reserve and became proficient users of a variety of data base programs, including Friendly Filer, Mastertype Filer, and Classification.

Students were pre and post tested on their knowledge of computer terminology and library skills. Results of these tests verified that sustained, relevant, and integrated activities were better than isolated, one-time training. Teachers in all grades discovered that their students were extremely positive and highly motivated to use the computers (even to the point of giving up recess to finish entering data!); that they volunteered to help one another more often; that they were more likely to work in teams over a long period; and that student "experts" emerged (often students not seen as leaders before). Motivation included choice of subject matter. The third graders researched mammals and could hardly wait to delve into the materials.

During the year, classrooms buzzed with computer activity. Initially, all students were taught the use of computers, proper behavior, and care of software. The fifth graders were introduced to data bases early in the

school year, and by January they had completed several projects. Teachers discovered that third and fourth graders needed additional time to develop computer use skills, and they used a Microzine data base as an introduction. All students seemed to need concrete products (printouts) frequently. As one third grader put it, "I want to put my data on the computer and have it spit back the information." This year students will have greater access to printers through a switching box and programs that encourage frequent printouts.

The computers were also used in more traditional ways: mathematics skill software to practice basic operations, publishing word processed stories and poems, and producing cards, wrapping paper, and holiday banners. Computers came out of the game and gimmick category and were seen as compelling and powerful opportunities for learning.

All teachers used large charts to help students design their data bases. First, the class listed and enumerated the data they wanted to collect. After grouping this data, they labeled each category. These categories became the fields that would then be entered into the computer. Students then developed the form to use for collecting the data, and as it was collected, it was keyed into the computerized data base. Finally, the data was then analyzed for patterns, as well as to discover trends and verify inferences and hypotheses. The fourth grade compared U.S. cities and found it a challenge to sift the many descriptors into logical general categories. The exciting reward was to discover commonalities they hadn't envisioned, such as origins as trading posts on rivers or coastal ports.

Students became involved in designing questionnaires and surveys. This gave students a better understanding of what "information" really is, how it can and cannot be manipulated, and the close relationship between data base design and survey design. Three initial questionnaire surveys compared parents' early school experiences with their own, analyzed what fifth graders in four school most wanted for Christmas, and profiled all students who would enter junior high school the next fall to see their commonalities and differences.

There is real exitement about the use of computers in Augusta as a result of **Pupils Engaged in Educational Research**. The project has been expanded and funded for a second year to include the development of a data base created from original documents housed at the Norlands-Washburn Museum in Livermore. Diskettes will be made available to schools and teachers throughout the country.

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$4,920 Classroom-Based Grant
Multidisciplinary
Elementary

PASS: People Actively Supporting Schools

School Administrative District # 68
Dover-Foxcroft

Most Innovative Grants are developed and submitted by educators concerned about a need in their school. **People Actively Supporting Schools** is unique because it originated with the group of parents interested in becoming more actively involved in education. It had been twenty-five years since the last active parent teacher organization existed in Dover-Foxcroft. Parent involvement with the schools was mostly through organized sports programs or in response to problems that arose. A group of parent volunteers was started in 1983, but soon began to suffer from volunteer burnout. The effort made by the group to overcome those feelings was the beginning of **PASS** in SAD #68.

The intent of the organizers was to build a sense of citizenship and commitment in children, to form a bridge for school and community to work together, and to provide children with a variety of positive role models and a broader range of social and cultural experiences. They also wanted to raise the aspirations of their children and make it more likely that they will be more responsive and committed to their community as adults.

By the spring of 1985, **PASS** was an active and recognized group, with fifty to sixty members. They had gained the support of teachers and administrators by proving to be reliable, helpful and willing to work for the children's best interests. They had developed a Recycling Center of materials collected from the community and businesses for teacher use, and a network of other resources (guest speakers, cultural programs, etc.). However, they still were overworking their core group of members because they had no effective way of utilizing the resources of the entire group. They also had problems managing volunteer activity from the initial teacher request to delivery of the service. At the suggestion of district administrators, **PASS** prepared an Innovative Grant proposal which would address these needs.

The Innovative Grant provided funding for creation of a part-time volunteer coordinator position, acquisition of a computer to help match the resources to the needs of teachers, and training for volunteers. The computerized management system keeps track of all program activity and the skills offered by volunteers and ensures that no single volunteer is over or under-utilized. An Advisory Council of volunteers, administrators, teachers and a school board member provide overall direction.

The results are striking: there are now 163 individuals offering their services as volunteers and over 3,000 hours of volunteer services were provided last year. Teachers have responded enthusiastically too: an average of two to five requests for service are now received daily and the Recycling Center is busier than ever. In the words of one, "The instructional help has been wonderful! I just would not have been able to individualize my program without reliable volunteers to watch the rest of the class while I fill a special need." Best of all, the community is very supportive of the program. A telephone survey of 224 people was conducted in September, 1985, and June, 1986. The number of people who knew about **PASS** increased by 55% in that time. 82% of those called said **PASS** was an asset to the school system and 72% thought it was a necessity.

The success of **PASS** demonstrates that every community offers a wellspring of resources for education. All it takes is some organization and a dedicated effort to produce amazing results.

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$18,655 School-Based Grant
School/Community Partnerships
Elementary

Prevention and Support for Children of Abuse/Neglect

Martel School
Lewiston

Child abuse and neglect is a serious problem requiring the attention of educators throughout Maine, since school is a place in which children are seen daily over a period of time by professionals trained to observe their appearance and behavior. The staff of Lewiston's Martel School spends considerable time reacting to a myriad of suspected or confirmed cases of abuse or neglect. **Prevention and Support for Children of Abuse/Neglect** began because the Martel staff believes they have an ethical responsibility to help children victimized by such circumstances.

The purpose of the project was to help staff better understand the issue of child abuse; to learn strategies for dealing with children of abuse; to help parents learn more effective ways of dealing with children; and to help affected children develop coping strategies. It stemmed from feelings of frustration and a sense that staff was merely reacting to crises instead of helping to prevent them. The goal was to reduce incidents by addressing the issue directly.

Components of the program included plans for staff development; purchase of materials for staff, students and parents; a course for parents to help them deal with their children more effectively; and an expansion of support groups already being conducted for children. Because of the grant, five staff members were able to attend two national conferences on the subject of abuse and neglect. They followed up by making presentations to faculty, distributing prepared packets and informally sharing their unique experiences with colleagues.

Other major activities included a workshop on Starting Strong, a sexual abuse curriculum and a Systematic Training for Effective Parenting (STEP) course conducted for parents. Materials were acquired for home distribution, a series of films on child abuse were held for staff and Kids on the Block, a national puppet troupe, performed for students, parents and staff. Finally, support groups were conducted for approximately forty of the 330 children in the school.

The results of this project on staff appear to be two-edged: While staff have learned to recognize the indicators of abuse, gained confidence in talking to children about suspected abuse, and understand the importance of building self-esteem in abused children, they are frustrated by the realization of how pervasive and uncontrollable the problem is. However, they now have a permanent resource library on hand, are much more familiar with the indicators of abuse, the role and limitations of the Department of Human Services, and have a better understanding of the "domino effect" of children's disclosure of abuse on themselves and their families. They have also learned that children seldom lie about abuse. They have not indicated any increase in their confidence in speaking with parents about suspected cases of abuse, but the school principal, Joanne Lebel, sees "tremendous gains in staff empathy, understanding and willingness to work with problem children." For a project of this type, that is a very important outcome.

For More Information Contact:

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$5,744 School-Based Grant
Staff Development
Elementary

Project Motion

Van Buren District Secondary School
SAD #24 (Van Buren)

Project Motion was conceived as a way of bringing industrial arts and college preparatory students together to solve a common problem. Like most schools, students at Van Buren District Secondary School tend to group themselves according to their academic interest. As a result, students are often stereotyped and don't develop appreciation for the contributions made by different groups. The first goal of **Project Motion** was to breakdown those stereotypes by having students work on a problem that required both of their respective strengths to solve. The second goal was to acquaint students with state-of-the-art computer-assisted drafting (CAD) technology.

Students of different backgrounds worked together very well and developed more positive attitudes towards each other. They successfully collaborated to design and manufacture a machine that neither group would have been able to do alone.

The need for the project was demonstrated in 1984 when physics students were given the assignment of constructing a perpetual motion machine. The results were less than satisfactory because of their lack of technical expertise in design and manufacturing. Earl Coombs, science coordinator, and Peter Ashley, industrial arts coordinator, then got together and planned a project that would require the talents of students from both areas. Those plans resulted in their Innovative Grant proposal.

Project Motion began in the spring of 1986. Twenty students, working in four teams, were given the task of designing and building a machine which would transfer energy efficiently. Team members included physics students, advanced drafting students, and industrial arts students. Physics students came up with design ideas and rough sketches and those rough sketches were turned into working drawings by the drafting students using the CAD system. During this process, flaws were detected in the proposed designs, so they were returned to the teams for modification. The changes were fed into the CAD system to make final drawings without the need to redraw the entire prints. Finally, the different parts required were manufactured by students in the industrial arts classes. After assembly, the machines were tested by the physics students to measure their efficiency.

The project accomplished its goals: students of different backgrounds worked together very well and indicated on a pre and post survey that they had developed more positive attitudes towards each other. They successfully collaborated to design and manufacture a machine that neither group would have been able to do alone. They also learned about CAD technology, with some individuals becoming proficient in its use. The success of **Project Motion** has encouraged the teachers involved to continue the project this year.

For More Information Contact:

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$7,574 School-Based Grant
Science/Industrial Arts
Secondary

Project Pride

School Administrative District #58
Kingfield

The economy of western Maine is changing significantly as jobs in traditional wood products and manufacturing industries are lost due to foreign competition, declining markets and technological innovation. The long-term impact of these changes and the need to create new opportunities for employment is of concern to the region.

"It was a highly charged evening. We felt we had discovered a new role for education - to serve as a catalyst for this rural area to gather information, discuss and take action of its future."

Under the leadership of School Administrative District #58, a district which includes the northern Franklin County towns of Kingfield, Strong, Phillips, Eustis and Avon, an innovative partnership of business people, community members, students and educators has been formed: **Project Pride**.

The goals of **Project Pride** are threefold:

1. To sponsor a series of forums for citizens of Franklin County which will inform them about issues concerning the economy, business and industry, education, social issues and government.

2. To develop a curriculum to foster skills and attitudes which will better enable students to achieve control over their lives and to live happily and successfully in a rapidly changing world.

3. To communicate information about the district's philosophy, goals, programs, staff and facilities in an effort to improve communications between district schools and the communities they serve.

The impetus for this project came from former superintendent David Brown's concern about changes in traditional job opportunities in the region and the need to develop each student's ability to take responsibility for his/her own decisions and goals. Once students acquire these skills, they will have the self-confidence and self-esteem to make the right choices for themselves. Under the direction of Vici Robinson, SAD #58's Volunteer Coordinator, relationships were built with area business leaders, community members, educators and students. Over fifty individuals representing these groups formed a task force to tackle the three goals of the project.

The most visible result of their work was two community Forums held during the year. At Forum I, sixty-one presenters representing state and local interests discussed the current problems and opportunities in Franklin County in twenty different topic areas. Over three hundred area citizens attended this Forum and, according to Vici Robinson, "It was a highly charged evening. We felt we had discovered a new role for education - to serve as a catalyst for this rural area to gather information, discuss and take action of its future."

Forum II dealt with the future of the region and was more of a work session. Individual groups focused on the most exciting challenges and opportunities in business and industry, the economy, government, society and education, including the implications for education. This list will become the focus of a problem-solving Forum scheduled this fall. The results of both Forums were used in several classes at the high school and shared with other groups statewide.

The groups also worked to define the specific skills and attitudes associated with successful employment and responsible citizenship. Their intent was to see these skills included in the district's curriculum. They decided to join with SAD #58's existing Social Studies Curriculum Committee, the only such committee to include community members as active participants. Work will continue this year on that task. Time ran out on their effort to develop a booklet describing the district for the community. That project will be finished this year.

Project Pride has served as a catalyst for a wide range of activities designed to get school and community people thinking and talking about the future of western Maine. While concrete results are hard to measure, efforts like these are important if schools are to retain the confidence of the taxpayers they serve and respond to changing conditions in our society.

For More Information Contact:

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$18,988 School-Based Grant
School/Community Partnerships
Elementary/Secondary

Reading:Writing/Teaching:Learning

John R. Graham School
Veazie

Reading:Writing/Teaching:Learning brings eighth grade students and prospective English teachers together through correspondence about books they are concurrently reading and, later, through conferences about their own writing. It provides each student the opportunity to select her/his own book and share it with an interested adult student through an exchange of personal letters. The prospective teachers have the opportunity to become familiar with secondary students' interests and reading/writing abilities as they develop their own questioning and explaining skills.

Both groups measurably improved their writing skills, with gains observed in recognition of audience, clarity of purpose and focus, fluency and elaboration, sentence length and variety and detailed content development.

The project was the brainchild of Barbara Wicks. Barbara teaches both seventh and eighth grade English at the Graham School and an English education course at the University of Maine. In her opinion, junior high students were eager for timely, challenging, non-text reading and for informal discussions of their reading and writing with others. She also felt that college students planning on a teaching career have only a brief acquaintance with secondary students and thus have limited context for assessing reading and writing resources and activities. This project offered an opportunity to meet both needs.

Last fall, support was mobilized from school officials, UM English Department faculty and students and the project begun. Double copies of the books requested by the eighth graders were purchased. They each read a chapter or so, then wrote letters introducing themselves and the books. On the basis of the letters and the books, UM students chose their correspondents. A series of ten letters, five from each participant, followed. In each class, instructors provided guidance and instruction in literary comprehension, analysis and interpretation, and in informal and formal writing skills. Professor MacKnight of the UM English Department worked with the university group through out; Professor Burnes met with them twice: once to discuss the values and techniques of personal narrative and correspondence in approaching formal or academic material, and once to discuss the writing process, especially pre-writing and conferencing aspects. For reference, all students kept photocopies of their letters before turning in originals for the instructors to deliver to their counterparts.

Midway through the project, all students began drafting pieces of formal writing, on topics and in forms of their choice. In their letters they began questioning and commenting on their experiences as writers and as readers. Throughout the reading, informal correspondence and writing, class instructors monitored student needs and progress and the timing and content of guidance and instruction.

After eleven weeks, the UM students visited the eighth graders at their school. Both groups relied on writer's cues and reader's expectations to identify their correspondents; then partners shared drafts of their writing-in-progress for each others' affirmations, questions, and suggestions. A second meeting, at the university, followed shortly afterward to provide further conversation and writing conference time. In their respective classes, students completed revisions and final drafts of their works. A typist prepared copy and photocopied and assembled booklets of the collected writings for participants.

The results were overwhelmingly positive. Both groups of participants were surveyed for their reaction; 93% of them rated the experience as excellent. Interestingly, each group thought that they had benefited most from the experience. Both groups measurably improved their writing skills, with gains observed in recognition of audience, clarity of purpose and focus, fluency and

elaboration, sentence length and variety and detailed content development. Many students in each group showed understanding of the relationship of form and tone to meaning, tolerance of ambiguity in literary interpretation and increased confidence and skill in reading, writing, questioning and responding.

The affective outcomes were also significant: literature and life, the academic and the personal, and teaching and learning began to blend and open broader perspectives for observing, questioning, and responding than either group of students might have experienced with more traditional assignments.

The process, readily applicable to other groups and subjects, resulted in a booklet of polished, published writing as well as these many less tangible products cited and demonstrated by the participants. It met individual needs of students with widely varied skills and motivation and will continue as part of both the Graham School and the UM pre-professional programs.

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$1,990 Classroom-Based Grant
Language Arts
Secondary

Sharing Our World

Rose M. Gaffney School
Machias

A teacher knows she has accomplished something very special with children when a parent, encountered at a local store, remarks that his child is still talking about **Sharing Our World**; when a child runs up to hug a teacher and reminds her about the funny smells at the lobster pound; or when another teacher is complimentary of the writing skills of her new students. Those experiences are concrete reminders to Maureen Smith and Marilyn Crandlemire of Machias that their second grade project was a big success.

As team teachers, Smith and Crandlemire had worked together to help children develop a sense of pride in themselves and their classroom work. It was appropriate then, as plans were made for a study of their community, that they would also encourage their children to have a sense of pride in the many unique qualities of rural and isolated Washington County.

Sharing Our World engaged students in creating albums describing their region. Trips were taken to eighteen different sites within sixty miles of Machias during May, 1985, including a lighthouse, blueberry farm, U.S. Customs Station, and paper mill. Throughout the month, children observed the uniqueness of their coastal community by traveling six hundred miles and taking as many photographs. Parent volunteers were used to lead small groups, with each of the groups visiting at least two sites per week. Using instant cameras, students photographed the sites, then returned to the classroom where afternoons were spent writing about their experience.

Dr. Edward Brazee, a writing consultant from the University of Maine, taught the chidren a three-part writing process that would be used throughout the project. Peer teaming was an essential part of that process; children were paired with each other after careful consideration of compatability, experience and ability. Armed with their own photographs, Dr. Brazee led them in a brainstorming exercise to establish a common vocabulary that evolved from the experience.

Each child then selected a photograph about which to write. Following the completion of this initial writing phase, the children read their products to their partners. Partners were encouraged to make suggestions and ask questions about what had been shared. Together they helped each other clarify, sequence, and edit the pieces they had written. Using the collection of common vocabulary provided from the brainstorming session and suggestions offered by partners, each individual rewrote his/her composition. In individual conferences with a teacher or parent, there was a final editing before the child rewrote for publication. This process was used throughout the project.

Excitement was high the day eight parents arrived at the school to help the children compile stories, photographs, brochures, drawings and maps to create eleven albums. The children were ready to share their Washington County world with ten other schools throughout the United States. Albums and copies of McClosky's books, Blueberries for Sal and One Morning in Maine found their way to children in Alaska, California, Georgia, Hawaii, Indiana, Kansas, Maryland, New Mexico, New York, Ohio, and South Dakota.

Family night, classroom visitations and a school board viewing enabled the children to share their world locally. As a result of this sharing, the students continue to grow in their appreciation of the area in which they live and exhibit improved oral and written language skills throughout all areas of the curriculum.

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$2,262 Classroom-Based Grant
Social Studies/Language Arts
Elementary

Students on Stage

Old Orchard Beach High School
Old Orchard Beach

Old Orchard Beach High School has only offered dramatics to its students on a limited basis. The impetus for **Students on Stage** was a 1984 accredation report by the New England Association of Schools and Colleges which noted the lack of dramatics in the curriculum and the new state law requiring a course in fine arts for graduation. English teachers Bill Marshall and Jane Kerry responded by taking responsibility for developing a dramatics program for the school. Key to their success was the cooperation of Barbara Rosoff, Artistic Director of Portland Stage Company (PSC), a professional theatre group.

Students were instructed by a nationally recognized playwright and were able to perform before an audience of professional actors. It became a fine arts experience integrating historical perspective, theory, observation, and performance.

Students on Stage is designed to provide students with a comprehensive theatre experience. It moves beyond traditional approaches to teaching dramatic arts to a partnership with a professional theatre by involving the staff and resources of the Portland Stage Company. Students receive academic credit for participation in a variety of activities related to the study and performance of drama, including play reading, acting, set design, costuming, playwriting and criticism. They participated in the major stages of six professional productions and are led to make artistic judgments about different aspects of the theatre.

Planning for **Students on Stage** began during the summer of 1985 when four modules were developed within the program: *Playwriting*, *Production*, *Performance*, and *Introduction to the Theatre*. The modules allow a student to chose an area of concentration. Forty-three students drawn from grades 9-12 were enrolled in the program in that fall.

Activities were developed and offered for students throughout the school year. They included attendance at the six regular performances of PSC and individual workshops in set design, costumes, lighting, acting, playwriting, and stage management offered by PSC. Other meetings and activities were held after school to prepare for or follow-up on the productions or workshops, as well as for discussion, rehearsal, performance and testing. Students enrolled in each of the modules were given different assignments or questions for each production. For example, for the production of Holiday, *Playwriting* students were directed to observe the language of the play and prepare a draft of a scene using similar language techniques; *Production* students obser ved how the set design was dictated by the script; *Performance* students observed the importance of timing in delivering lines; and *Introduction* students noted the dramatic structure of the play (exposition, rising action, complication, climax, denouement).

Students were instructed by a nationally recognized playwright; were able to perform before an audience of professional actors; were taken backstage to see and work with all aspects of technical theatre; and were able to discuss a production with the director, actors, and technicians. This experience provided them with a comprehensive view of the theatre, one that moved far beyond a more traditional unit in English class or class play. It became a fine arts experience integrating historical perspective, theory, observation, and performance.

The success of **Students on Stage** is evident in the enthusiasm of students and interest in the theatre it generated. For some students, it was an introductory experience (twenty-seven had never seen a play before), for others an opportunity to write a play. Whatever the extent of the involvement, it proved to be rewarding. **Students on Stage** has been enthusiastically received by the school and the obvious omission of dramatics remedied.

This year the program will expand to involve more

In addition to opportunities in playwriting, production and performance, students will receive specialized instruction in oral interpretation, musical theatre, makeup, and criticism. The program will culminate in one or more full productions of student written plays, acted by students, directed by students, and designed by students. This activity will utilize all of the theory and skills mastered during the year. **Students on Stage** is an excellent example of how smaller high schools can offer a quality fine arts program without adding new

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$3,535 Classroom-Based Grant
Arts
Secondary

Understanding Cultural Diversity

Wells Junior High School
Wells

As a coastal resort community, Wells receives numerous visitors from out of state, including many French-speaking Canadian tourists. Susan Walters and Dennis Gallagher, teachers at Wells Junior High School, were concerned about the ethno-centric attitudes of their students toward foreigners in general and Quebecois tourists in particular. They knew that 50% of those students are likely to hold jobs in tourist-related businesses serving many Quebecois. They also believed our global economy requires intercultural understanding for both economic and political reasons. The fact that their students displayed so little understanding of their nearest neighbor was cause for concern.

The simulation game helped students experience typical reactions to encountering a foreign culture: fear of making mistakes, misinterpretation of observations due to cultural bias, and feeling stupid and left-out. In Quebec they experienced all of these feelings again, only this time for real.

Understanding Cultural Diversity, a one semester enrichment course for eighth graders designed to give students a conceptual understanding of the various factors which interact to create a culture, was the response to their concern. The first eight weeks of the course focused on global awareness and problems arising from perceptual biases. The second half provided an examin ation of family and education in other cultures. Japan received the most attention because of its non-Western culture and close economic ties to the West. The presence of a major Japanese manufacturing company in York county reinforced the ubiquity of those ties.

Most class activities were "hands-on", including having students trace their own family origins, a game simulating cross-cultural contacts and a "rumor clinic" illustrated. The culminating activity was a five day exchange program with *Ecole Secondaire L'Aubier*, a junior high school in St. Romuald, Quebec. The exchange with the Quebec school was the highlight of the course. The simulation game helped students experience typical reactions to encountering a foreign culture: fear of making mistakes, misinterpretation of observations due to cultural bias, and feeling stupid and left-out. In Quebec they experienced all of these feelings again, only this time for real. Students were shocked to find themselves in a school where everything was in a foreign language. French was no longer an academic subject, but a living language spoken by real people. Students found themselves tired by the effort to focus on understanding another language. Each day when they met, they needed to spend time processing their experiences, comparing notes, and just speaking English. Eventually they learned to communicate: one boy commented that he coped by using a combination of "basic head shakes and hand gestures" as well as his French/English dictionary.

An unexpected outcome was that students talked openly about feelings with both peers and teachers. On arrival, while waiting to meet the Canadian students, they talked about how frightened they were, an emotion so strong that the usual pressure to be "cool" was overcome. A few days before the end of the visit, the two groups of students discussed their mutual reactions. The comments graphically demonstrated that they shared the same feelings and similar misunderstandings when exposed to living in each other's culture. One interesting illustration of perceptual bias was a Canadian student's description of the Pledge of Allegiance: "They stand up and pray to the flag." Teachers also benefitted from the exchange. They discovered they share many of the same professional concerns and problems: administrative and logistical difficulties, unmotivated students, and home problems which impact student learning.

The last activity was a pot luck supper, where host parents spoke of how much they had enjoyed their guests

(some jokingly expressed interest in a permanent swap!) and how much they too had learned from the experience.

The exchange was reciprocated the following week when Canadian students came to Wells for five days. Their presence generated a great deal of interest in the school community. Students who tried to make friends had to work to overcome the language barrrier and experienced many of the same difficulties as participating students. A dance held on the last night of the exchange was attended by a majority of the student body; its success was evidence that both schools were truly involved in this project, not just a handful of students.

The involvement of Wells parents as hosts also allowed them to participate in the experience. As had the Canadian parents, Wells parents commented on how much they had learned from the exchange. One mother said that trying to motivate a non-English speaker to be ready for the 6:45 am school bus had taught her how one can transcend language barriers when the need arises. When the guests left, tears were shed by both family members and students. Several families made plans to visit their Canadian counterparts in the summer.

This year they will begin communicating with the Canadian school early in the fall, so that letters, video and audio tapes can be exchanged to prepare students for the visit. They have also learned the importance of making the exchange family to family. This year parents of all participating students must be willing and able to host a Canadian student. The timing may also be changed. Back to back sessions were made to save transportation costs, but ten straight days of constant activity was exhausting for both students and teachers.

Student comments, both verbally and on their final compositions, indicated that they did acquire the intended concepts as a result of the **Understanding Cultural Diversity** experience. The exchange will foster further learning as students reflect on their visit, encounter other people from different cultures in Wells, and as ties between the two communities - so different but yet so similar - continue to develop.

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$4,675 Classroom-Based Grant
Social Studies
Secondary

Video Journalism

Mt. Ararat School
SAD # 75 (Topsham)

Video Journalism was a full-year course within the English Department at Mt. Ararat School in Topsham which bridged the English and fine arts curricula. Tenth grade students worked daily with an English teacher, Jeff Fischer, who is also a professional journalist, and twice weekly with a nationally-known filmmaker, Mary Lampson. They applied their research about people and places in the school and in the four communities which comprise SAD #75 (Topsham, Bowdoin, Bowdoinham and Harpswell), to the art of the documentary, working with high-quality video equipment owned by the town of Harpswell's cable television franchise and housed at the school. The class met daily, but students were also committed to after-school hours for production and editing.

Students made over a dozen videos, ranging in length from two to twenty minutes. Some were visual montages set to songs or poetry, others were full-fledged documentaries on subjects such as the making of the Mt. Ararat Stage Company production of West Side Story and the struggles of a young rock band.

The course focused on the process of filmmaking, through the planning, production, and editing phases; its emphasis was on thinking in the language of film rather than on the technical aspects of production - and on the parallels between filmmaking and researching/writing as a means of gathering material and organizing it to say something coherent and interesting. Using sophisticated editing equipment, the students were able to focus and refine hours of raw footage into highly polished, well-structured documentaries.

The curriculum attempted to unify the elements of literature, writing, and film making. For instance, while students were making documentaries in the first quarter about people and their skills (award winning videos, for instance, about basketmaker Joli Greene and quilter Pat McPherson), they read John McPhee's Survival of the Birch Bark Canoe and viewed documentary films that also focused on the process of making things. When students later wrote research papers about the working lives of people in the SAD #75 community, they also read Working, Death of a Salesman, and The Jungle, and saw documentary films such as Rosie the Riveter and Cut and Run, which depict the working lives of ordinary people.

In all, students made over a dozen videos, ranging in length from two to twenty minutes. Some were visual montages set to songs or poetry, others were full-fledged documentaries on subjects such as the making of the Mt. Ararat Stage Company production of West Side Story and the struggles of a young rock band. An important element of the course was getting the student videos shown. Students presented them to other classes within the school; they were shown at workshops and conferences throughout the state and at the Portland Museum of Art; they were entered into contests in Maine and New England (several won awards), and sent to public television stations and cable networks.

In addition to the Innovative Grant, funds for **Video Journalism** came from the Artist-in-Residence program of the Maine Arts Commission, the Gifted and Talented Office of the Maine Department of Educational & Cultural Services, and SAD #75. This diverse funding allowed the course to extend well past school hours, to provide students with high quality documentary films and books, and, most importantly, to hire a professional filmmaker to work with students through the course of an entire year. The quality of the students' work was due in large part to the team approach taken by the teacher and the artist-in-residence. Since many Maine schools already own at least minimal video production equipment (video cameras and VCRs), **Video Journalism** is a model for other schools, particularly in light of the recent requirement of one credit in the fine arts for high

school graduation. Jeff Fischer will be on sabbatical leave in the coming year; in his absence an elective course in documentary film making will be offered through the Art Department, without a connection to the English curriculum, but with the services of an artist-in-residence. The intention is to resume the full course in the 1987-88 year upon Jeff's return.

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$4,920 Classroom-Based Grant
Language Arts/Arts
Secondary

Waldo County Early Education Program

School Administrative Districts # 3, 34, and 56
Unity, Belfast and Searsport

Only three school districts, SAD #3 (Unity), SAD #34 (Belfast) and SAD #56 (Searsport) serve the majority of Waldo County's population. It is a rural area, with the state's highest unemployment rate and one of the lowest levels of per capita income. Waldo County Pre-school Services, one of sixteen such agencies funded cooperatively by the Departments of Mental Health & Retardation, Education & Cultural Services and Human Services, has worked for the past two years to coordinate and develop programs for preschool handicapped children in the region.

The **Waldo County Early Education Program** was conceived as a way of providing pre-school services to children ages 3-5 who were found to have handicaps, "at-risk" conditions, or who showed significant developmental delays. Its intent was to identify and serve these children early, with the hope of remedying their learning problems before they reach formal school age. Many studies have shown that early intervention can make a difference in the success these children have later in life and can also help reduce the overall cost of special education services in the public schools. They also wanted to reduce parent anxiety about bringing their handicapped child to school for the first time and give parents a feeling that there is real hope that their child will be successful in school.

Twelve children, drawn from each of the districts, met for two hours, three times a week. A teacher and teacher's aide provided them with a program geared to their individual needs and designed to provide them with the skills needed to be successful learners. Help from specialists, such as a speech therapist, was also available when necessary. While the children met upstairs, a parents' group was held downstairs to focus on ways that they might become better teachers of their children.

Staff from Waldo County Preschool Services conducted one meeting with each school district's appropriate staff to further enhance preschool and school age coordination. Five county-wide kindergarten classes were also visited to learn what programs are available as children reach school age.

The remaining component of the project was a series of regional workshops focusing on issues in early childhood education. Topics included *Speech and Language Development*, *Parent Conferencing*, and *Medication and the Hyperactive Child*. These workshops, held after school or in the evening for an audience of kindergarten and special education teachers, pre-school educators, and interested parents, were well attended and very productive.

The project was conceived and planned by John Sommo, Director of Waldo County Preschool Services, with the active support and cooperation of the Special Services Directors in the three area districts. The uniqueness of the program stems from its collaborative nature. Although at least twelve other preschool programs already exist in Maine, this is the only one known to involve three separate school districts. As such, it is a cost-effective model that could be used in other rural areas of the state.

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$10,903 School-Based Grant
Early Childhood/Special Education
Preschool

Writing - A Model For Improving Communication

Katahdin High School
SAD #25 (Patten)

Katahdin High School has a long history of concern with student writing. For the past ten years various teachers at this small, rural school on the southern edge of Aroostook County have participated in University of Maine writing courses and workshops. A longstanding idea of particular interest to both English and Vocational Education teachers has been the notion of giving vocational students more training in technical writing. Also, as in most schools, there is a degree of isolation between vocational teachers and regular faculty. A secondary objective was to devise a project that would integrate the work of both groups. The innovative grant program was perceived as an opportunity to make that idea a reality. With the active support of the school's principal, Loren Ritchie, a core group of teachers worked with UM's Pat Burnes to design **Writing - A Model for Improving Communication**. They wanted to develop a plan for teaching technical writing and to review and improve the other work they had been doing with student writing. They also decided to involve elementary and junior high teachers in the project.

Vocational teachers reported that students came to class more ready to work, remembering what they had written in their logs the day before about tasks to be accomplished and ways to begin.

The project began in 1985 with a summer workshop for English and Vocational teachers lead by UM faculty. The workshop was designed to teach teachers more about writing so they could plan engaging and demanding assignments for their students. It was also meant to familiarize the group with each other's content area so they could assign and evaluate technical writing without distorting each other's perspectives or confusing students.

The initial task was for groups of three to construct a purposeful device with at least one moving part from a set of tinker-toys, and then write instructions for assembly and operation that could be easily followed. Predictably enough, the vocational teachers took the lead in designing the device, but positions changed when they began writing their instructions. Here the vocational teachers came to recognize that their usually implicit insights into structure, design, and mechanics needed to be made explicit if they were to be useful - and that that was not an easy task. The exercise introduced the teachers to technical writing and demonstrated the collaboration needed to teach it successfully.

During the school year, students began keeping daily logs in their vocational classes and spending 15-20 minutes of Friday's English class summarizing their week's work. English class time was also devoted to a variety of other technical writing projects: business letters of complaint or commendation, informative speeches (first written, then delivered) on current work projects, and working definitions and descriptions of devices familiar to them but new to their English teachers. The letters were especially successful because of the responses they invoked - from written replies to free samples and to a personal visit from a company representative. Parents commented on how much enthusiasm their children had for the project and other classes asked to write letters too.

As the students got in the habit of keeping logs in their vocational classes, they became more disciplined in their attitudes toward class. Vocational teachers reported that students came to class more ready to work, remembering what they had written in their logs the day before about tasks to be accomplished and ways to begin.

86% of the vocational students in the class of 1986 went on to one of Maine's Vocational-Technical Institutes after graduation, twice as many as last year. While it is hard to attribute that change to this program, it may well have been a contributing factor. Vocational students

often feel isolated from the academic side of high school. The technical writing in English class and having English teachers visit them in their vocational classes may have made them feel more a part of the school and more willing to continue their educations.

The physical separateness of the building made it difficult for English and Vocational teachers to meet regularly. Mutual planning time would have helped: English teachers could have given advice on ways to respond to student writing and Vocational teachers could have suggested workable technical writing projects. This year, more effort will be made to find such time. Vocational teachers will also take a more active role in responding to the students' logs. The first year a part-time writing assistant wrote comments back to students; next year, after further training, the vocational teachers themselves will handle this responsibility. The writing assistant was very important to the success of the program. According to Loren, "The individual attention and monitoring process for the vocational students provided by this person is the support system so often missing for these students." Finally, **Writing - A Model for Communication** will be expanded to include teachers in other content areas interested in including writing in their classes.

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$9,528 School-Based Grant
Vocational/Language Arts
Secondary

Writing Skills for the Information Age

George B. Weatherbee School
SAD # 22 (Hampden)

The Board of Directors of SAD #22 (Hampden, Winterport and Newburgh) has made a firm commitment to the educational use of technology. In response, the staff researched effective uses of computers and developed a comprehensive K-12 computer curriculum which includes activities at all grade levels in three categories: Learning About Computers; Learning With Computers; and Learning Using Computers. **Writing Skills for the Information Age** was a direct result of this research and planning process.

Teachers saw greater productivity from students, both in the rate at which they wrote and in their total output of writing. In addition, they found that students were paying more attention to stylistic, punctuation and grammatical needs. They also found students more motivated to write and more willing to edit, revise and improve their work than they were when all writing was done by hand.

The computer curriculum committee felt that using computers for word processing would produce benefits across the curriculum, since writing is a skill used in every discipline. They also felt proper keyboarding instruction is the first step in teaching students to use computers as writing tools. Together they developed a plan to teach keyboarding skills and word processing to a group of fifth graders in the district with the ultimate goal of improving student writing abilities. That plan became the basis for the innovative grant proposal they submitted.

The project began with a nine-week keyboarding class taught forty minutes daily by Jan Crossman, a business teacher at Hampden Academy. Gretchen Greiner, District Computer Coordinator, then taught students to use Bank Street Writer, a word processing program designed for student use. For the remainder of the year, students used computers for writing process activities twice a week during their regular language arts period under the direction of Florence Natalie, their regular classroom teacher.

The results were very gratifying: most students learned to type at least as fast as they could write and all became proficient at using the Bank Street Writer software. Teachers saw greater productivity from students, both in the rate at which they wrote and in their total output of writing. In addition, they found students paid more attention to stylistic, punctuation and grammatical needs. They also found students more motivated to write and more willing to edit, revise and improve their work than they were when all writing was done by hand.

Writing Skills for the Information Age activities have now been formally incorporated into both the language arts and computer education curriculum documents of the district. This year's inservice workshops will concentrate on the elements of the project, its effect on the teaching of language arts and its implications for writing in all subject areas. Future evaluation of writing will be geared to the Maine Educational Assessment scoring guidelines, allowing teachers to evaluate student growth throughout the year.

Writing Skills for the Information Age grew dramatically during its first year and significantly changed the way in which computer education, language arts and written communication are viewed in SAD #22. This year, it will be expanded district-wide at the seventh grade level.

Changes in student attitudes toward writing were the most striking result of **Writing Skills in the Information Age**. These changes were expressed in a student survey conducted at the end of the school year. Some of their comments and their implications are summarized below:

You don't have to worry about making any mistakes.	With word processing, students can express themselves first, then clean up the mechanics later without the penalty of having to recopy their work.
Half the time I can't read my own work.	Word processing breaks the connection between writing and handwriting.
It is much easier to use a cursor than an eraser.	Electronic editing is much easier than re-writing by hand.
I would rather compose on the computer because it hurts my hands when I write.	Handwriting is physically tiring, which may influence the quality and quantity of student writing.

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$16,174 School-Based Grant
Language Arts
Elementary

Innovative Education Grant Program

Advisory Board

Betsy Berry	Teacher	Georges Valley High School Thomaston
Gerry Bryan	Teacher	Downeast School Bangor
Joseph Capelutti	Principal	Auburn Middle School Auburn
Dewaine Craig	Superintendent	S.A.D. #44 Bethel
Loren Downey	Director	University College of Education University of Maine System Gorham
Joyce Freeman	Curriculum Supervisor	Auburn School Department Auburn
George Jacobs	Science Chairperson	Lewiston High School Lewiston
Stu Kestenbaum	Assistant Director	Maine Arts Commission Augusta
Thomas Morrill	Principal	Kingfield Elementary School Kingfield
Don Reutershan	Consultant	Maine Department of Educational and Cultural Services Augusta
William Richards	Director	Division of Curriculum Maine Department of Educational and Cultural Services Augusta
Paulette Savoie	Curriculum Coordinator	School Union #7 Saco
Duane Small	Principal	Brookside Elementary School Waterville

Innovative Education Grants

TITLE	SYSTEM	SCHOOL	(S)chool or (C)lassroom	CASE STUDY
Alternative Education				
EXCELLENCE FOR THE UNDERACHIEVER	AUBURN	EDWARD LITTLE HIGH	S	YES
YOUTH IN ACTION	GORHAM	GORHAM HIGH SCHOOL	S	YES
COALITION OF ESSENTIAL SCHOOLS	PORTLAND	PORTLAND HIGH SCHOOL	S	YES
M.A.P.	PORTLAND	KING MIDDLE SCHOOL	S	YES
Arts				
ARTS & ACADEMICS	AUBURN	AUBURN MIDDLE SCHOOL	C	NO
GREAT ART TO GO	AUGUSTA	LINCOLN + GILBERT SCHOOLS	C	NO
STUDIO 456! WORDWORKS	CAPE ELIZABETH	CAPE ELIZABETH MIDDLE	C	YES
TEACHER TRAINING	CAPE ELIZABETH	POND COVE ELEM & 1	S	YES
PERFORMING ARTS PILOT PROGRAM	FALMOUTH	PLUMMER-MOTZ SCHOOL	C	YES
ART IN THE TRADES	MAINCE VOC. REGION 10	MAINE VOC REGION 10	C	YES
STUDENTS ON STAGE	OLD ORCHARD BEACH	OLD ORCHARD BEACH H.S.	C	YES
CREATIVE MOVEMENT	RANGELEY	RANGELEY LAKES REGIONAL	C	YES
ARTS AWARENESS	SAD 01 (PRESQUE ISLE)	PINE STREET SCHOOL	S	NO
COURSES IN FINE ARTS APPRECIATION	SAD 17 (SOUTH PARIS)	OXFORD HILLS HIGH	C	YES
SUNRISE PRODUCTIONS	SAD 34 (BELFAST)	GLADYS WEYMOUTH ELEM	S	NO
ART AS A LIVING	SAD 44 (BETHEL)	TELSTAR MID/SR REG HIGH	S	YES
RIPPLE IN THE POND	SAD 44 (BETHEL)	WOODSTOCK ELEMENTARY	S	NO
RELIEF PRINT MAKING/RURAL STUDENTS	SAD 57 (WATERBORO)	MASSABESIC HIGH SCHOOL	C	YES
DANCE/CREATIVE EXPRESSION	SAD 58 (KINGFIELD)	KINGFIELD, PHILLIPS	S	YES
FOLK LIFE STUDIES IN VIDEO	SAD 75 (TOPSHAM)	MT. ARARAT	C	YES
THE GERMINATION OF AN IDEA	SANFORD	EDISON SCHOOL	C	NO
A COMPUTER IN THE ARTS	SOUTH PORTLAND	MAHONEY MIDDLE SCHOOL	C	NO
FINE ARTS AND CREATIVE THINKING	UNION 037 (RANGELEY)	RANGELEY LAKES REGIONAL	C	YES
ELEMENTARY VIOLIN TALENT PROGRAM	UNION 042 (ROME)	ROME ELEMENTARY	C	NO
ELEMENTARY THEATRE-A PRIATE'S GOLD	UNION 047 (WEST BATH)	WEST BATH SCHOOL	S	NO
ARCHITECTURE IN WISCASSET	UNION 048 (WISCASSET)	WISCASSET HIGH SCHOOL	C	NO
Computers				
KEYBOARDING FOR ELEMENTARY	AUBURN	EDWARD LITTLE HIGH	C	YES
KEYBOARDING/CAREER EDUCATION	AUGUSTA	CONY HIGH SCHOOL	S	YES
TOOLS FOR TEACHERS	BANGOR	DOWNEAST ELEM	S	YES
COMPUTER LIBRARY AIDES PROGRAM	FALMOUTH	FALMOUTH HIGH SCHOOL	C	YES

LEND AN APPLE TO A TEACHER	GORHAM	SHAW JR HIGH	C	YES
COMPUTERIZED STUDENT ATTENDANCE	OLD TOWN	OLD TOWN HIGH SCHOOL	S	NO
THE COMPUTER MANAGED HOME	PORTLAND	PORTLAND HIGH SCHOOL	C	YES
PROJECT KEYS	SAD 01 (PRESQUE ISLE)	PRESQUE ISLE RVC	S	NO
COMPUTER PACKETS: PRIMARY TEACHERS	SAD 09 (FARMINGTON)	WILTON ELEMENTARY SCHOOLS	C	NO
ROBOTICS	SAD 49 (FAIRFIELD)	LAWRENCE HIGH SCHOOL	C	NO
TELECOMMUNICATIONS NETWORK	SAD 49 (FAIRFIELD)	LAWRENCE HIGH SCHOOL	C	NO
ELECTRONIC BLACKBOARD	SAD 71 (KENNEBUNK)	CONSOLIDATED SCHOOL	C	NO
MANAGEMENT SYSTEM/SUPPORT	SCARBOROUGH	SCARBOROUGH HIGH SCHOOL	C	YES
HISTORY & DEVELOPMENT OF MICROCHIP	UNION 037 (RANGELEY)	RANGELEY LAKES REGIONAL	C	NO

Curriculum Development

MAINE ACADEMIC DECATHLON	PORTLAND	PORTLAND & DEERING HIGH	S	NO
TO RAISE ACADEMIC AWARENESS	SAD 19 (LUBEC)	LUBEC HIGH SCHOOL	S	NO
CURRICULUM DEVELOPMENT	SAD 40 (WALDOBORO)	NINE SCHOOLS IN SAD 40	S	NO
MAINE ACADEMIC DECATHLON	SCARBOROUGH	SCARBOROUGH HIGH SCHOOL	S	NO
PROJECT EXTENSION	UNION 043 (MONMOUTH)	HENRY L. COTTRELL SCHOOL	S	NO
"WINDHAM FOCUS"	WINDHAM	MANCHESTER-ARLINGTON	S	NO

Early Childhood Education

KIDS	AUBURN	SHERWOOD HEIGHTS SCHOOL	C	YES
LEARNING STYLES	PORTLAND	REICHE COMMUNITY SCHOOL	C	NO
CHILD CARE & PARENTING PROJECT	RICHMOND	RICHMOND HIGH SCHOOL	S	YES
POST-KINDERGARTEN SUMMER SCH.	SAD 01 (PRESQUE ISLE)	PINE STREET ELEM	S	YES
ACADEMIA	SAD 28 (CAMDEN)	ROCKPORT ELEMENTARY	C	YES
S.M.I.L.E. NOW!	SAD 34 (BELFAST)	KERMIT NICKERSON SCHOOL	C	NO
THE READ-ALONG PRESS	SAD 49 (FAIRFIELD)	CENTRAL ELEMENTARY	C	NO
EARLY EDUCATION PROGRAM	SAD 56 (SEARSPORT)	COOPERATION W/ SAD 3 & 34	S	YES
SAD 60 PRESCHOOL PROJECT	SAD 60 (BERWICK)	NORTH BERWICK HEADSTART	S	YES
READY OR NOT	UNION 091 (BUCKSPORT)	LUMAN WARREN SCHOOL	C	NO
PRIMARY READ ALOUD PROGRAM	UNION 096 (STEUBEN)	ELLA LEWIS SCHOOL	C	NO
WHOLE LANGUAGE & MUSIC	UNION 098 (TREMONT)	TREMONT CONSOLIDATED	C	NO

Elementary Curriculum

ORAL HISTORY - CAREERS	BANGOR	DOWNEAST ELEMENTARY	C	NO
"HANDS ON" CHILDREN'S MUSEUM	RICHMOND	MARCIA BUKER SCHOOL	C	NO
CREATIVE DISCOVERY	SAD 15 (GRAY/NEW GLOUCESTER)	MEMORIAL SCHOOL	C	NO
1+1+1+1 = 1	SAD 17 (SOUTH PARIS)	GUY E. ROWE SCHOOL	C	YES
VACATION LEARNING LAB	SAD 35 (SOUTH BERWICK)	MARSHWOOD JUNIOR HIGH	C	NO
HANDS ON OUR PAST	UNION 047 (WOOLWICH)	WOOLWICH CENTRAL SCHOOL	C	YES
SHARING OUR WORLD	UNION 102 (MACHIAS)	ROSE GAFFNEY ELEMENTARY	C	NO

Foreign Language/English As A Second Language

ASIAN FOLKTALE READER	PORTLAND	KING MIDDLE SCHOOL	C	NO
THE NEW ENGLAND EXPERIENCE	PORTLAND	PORTLAND HIGH SCHOOL	C	YES
CONVERSATIONAL FRENCH	SAD 01 (PRESQUE ISLE)	ZIPPEL ELEMENTARY	C	NO
GERMAN-AMERICAN ED EXCHANGE	SAD 09 (FARMINGTON)	MT. BLUE HIGH SCHOOL	C	NO

Gifted And Talented Education

GIFTED & TALENTED SYMPOSIUM	AUGUSTA	AUGUSTA, SAD 16	S	NO
AN OCEANOGRAPHIC STUDY	MILLINOCKET	DISTRICT WIDE SCHOOLS	C	NO
PROJECT ADVANCE IN MAINE	SAD 15 (GRAY/NEW GLOUCESTER)	GRAY-NEW GLOUCESTER	S	NO
PARENTS PROGRAM FOR G/T	SAD 22 (HAMPDEN)	LEROY SMITH SCHOOL	S	NO
G/T COMMUNICATIONS	SAD 28 (CAMDEN)	ROCKPORT ELEMENTARY	C	NO
TRAVELING VIDEOS	SAD 36 (LIVERMORE FALLS)	LIVERMORE FALLS GRAMMAR	C	NO
ADOLESCENT LITERATURE	SAD 60 (BERWICK)	NOBLE JUNIOR HIGH SCHOOL	C	YES
GIFTED/TALENTED RESEARCH	UNION 098 (BAR HARBOR)	CONNERS/EMERSON SCHOOL	C	YES
HORIZONS EAST	UNION 104 (EASTPORT)	SHEAD HIGH SCHOOL	S	NO
MATAGAMON TO MEDWAY	UNION 113 (E. MILLINOCKET)	SCHENCK HIGH SCHOOL	C	NO

Guidance

PROGRAMS FOR CHILDREN OF ABUSE	LEWISTON	MARTEL SCHOOL	S	YES
ENHANCING COUNSELOR SERVICES	SAD 17 (SOUTH PARIS)	GUY E. ROWE SCHOOL	C	NO
GROUP PROCESS FOR CLASSROOM TEACHER	SAD 54 (SKOWHEGAN)	SKOWHEGAN AREA HIGH	C	YES
CAREER EXPLORATION	WATERVILLE	WATERVILLE ADULT ED	C	NO
MAGICAL JOURNEY	WESTBROOK	CONGIN SCHOOL	C	NO

Health

SURVIVAL PROGRAM	ORRINGTON	CENTER DRIVE SCHOOL	C	NO
SELF POWER	SAD 20 (FORT FAIRFIELD)	FORT FAIRFIELD HIGH	C	NO
FEED 'EM	SAD 32 (ASHLAND)	ASHLAND COMMUNITY HIGH	C	NO
TEENS 'N THEATRE	SAD 54 (SKOWHEGAN)	SKOWHEGAN AREA HIGH	C	NO
MEALS ON WHEELS	SAD 58 (KINGFIELD)	PHILLIPS ELEMENTARY	C	NO
PEER HELPER PROGRAM	SAD 61 (BRIDGTON)	LAKE REGION HIGH SCHOOL	C	NO

Home Economics

VIDEOTAPE: BETWEEN PARENT & TODDLER	CSD 907 (MOUNT DESERT)	MOUNT DESERT ISLAND HIGH	C	NO
COURSE: NUTRITION AS A SCIENCE	SAD 22 (HAMPDEN)	HAMPDEN ACADEMY	C	YES
ENERGY AND FOOD	SAD 60 (BERWICK)	NOBLE HIGH SCHOOL	C	NO

Humanities

AMERICAN TRADITION	SACO	SACO MIDDLE SCHOOL	C	YES
GREAT THEMES OF LITERATURE	SAD 24 (VAN BUREN)	VAN BUREN SECONDARY	S	YES
THE AMERICAN EXPERIENCE	SAD 34 (BELFAST)	BELFAST AREA HIGH SCHOOL	C	YES
DEVEL. OF HUMANITIES PROGRAM	SAD 40 (WALDOBORO)	MEDOMAK VALLEY HIGH	C	NO
MUSIC AND THE HUMANITIES	SAD 55 (CORNISH)	SACOPEE VALLEY ELEM	S	YES
HIGH SCHOOL HUMANITIES COURSE	UNION 049 (BOOTHBAY HARBOR)	BOOTHBAY REGION HIGH	C	YES
ARCHAEOLOGICAL RESEARCH	UNION 093 (BLUE HILL)	GEORGE STEVENS ACADEMY	C	NO

Industrial Arts

COM-PUTE AT BREWER HIGH	BREWER	BREWER HIGH SCHOOL	C	YES
MODERNIZING INDUSTRIAL ARTS	NEWCASTLE	LINCOLN ACADEMY	C	YES
HEADLINES	SAD 05 (ROCKLAND)	ROCKLAND JUNIOR HIGH	C	NO
PROJECT MOTION	SAD 24 (VAN BUREN)	VAN BUREN SECONDARY	S	YES
INDUSTRIAL TECHNOLOGY	SAD 71 (KENNEBUNK)	JR HIGH OF THE KENNEBUNKS	C	NO
APPLIED TECHNOLOGY	WATERVILLE	WATERVILLE HIGH SCHOOL	C	NO

Language Arts/Elementary

LIVING LANGUAGE	AUGUSTA	SYLVIA J. GILBERT ELEM	C	NO
WRITING IN THE CONTENT AREAS	KITTERY	HORACE MITCHELL SCHOOL	C	NO
WRITING FOR PUBLICATION	LEWISTON	MARTEL SCHOOL	C	NO
BOOKS ALIVE IN '85	SAD 09 (FARMINGTON)	MALLETT & ST. JOSEPH	C	NO
CANTONTALK	SAD 21 (DIXFIELD)	CANTON SCHOOL	S	NO
WRITING SKILLS	SAD 22 (HAMPDEN)	WEATHERBEE	S	YES
"WE CAN DO IT"	SAD 40 (WALDOBORO)	PRESCOTT MEMORIAL	C	NO
DEVELOPMENTAL WRITING CURRICULUM	SAD 42 (MARS HILL)	FORT STREET SCHOOL	S	YES
APPLICATIONS OF WORD PROCESSING	SAD 46 (DEXTER)	DEXTER MIDDLE SCHOOL	S	YES
WRITERS TO WRITERS	SAD 54 (SKOWHEGAN)	BLOOMFIELD ELEMENTARY	C	YES
STORYTELLERS	SAD 71 (KENNEBUNK)	PARK STREET SCHOOL	C	NO
SPELLING FOR A PURPOSE	UNION 042 (MANCHESTER)	MANCHESTER ELEMENTARY	C	YES
WRITING IS LANGUAGE LEARNING	UNION 051 (WINDSOR)	WINDSOR ELEMENTARY	C	YES
THE WRITE PROJECT	UNION 060 (GREENVILLE)	NICKERSON ELEMENTARY	C	YES
WELL	WINDHAM	FIELD ALLEN SCHOOL	C	YES
INTEGRATED LEARNING	WINDHAM	AIKIN KTG. CENTER	S	NO

Language Arts/High School

CLASSROOM NEWSPAPER	JAY	JAY JUNIOR HIGH SCHOOL	C	NO
LANGUAGE CONNECTIONS	LIMESTONE	LIMESTONE JR. & SR. HIGH	C	YES
PROCESSING IMPROVES WRITING	MILLINOCKET	MILLINOCKET MIDDLE	C	NO
PORT TO PRAIRIE	PORTLAND	PORTLAND HIGH SCHOOL	C	NO
A MODEL FOR IMPROVING COMMUNICATION	SAD 25 (SHERMAN STATION)	KATAHDIN HIGH SCHOOL	S	YES
"STUDY-WRITE"	SAD 34 (BELFAST)	CROSBY JUNIOR HIGH	C	YES
WRITING PROJECT	SAD 42 (MARS HILL)	CENTRAL AROOSTOOK HIGH	S	NO
KIDTALK	SAD 61 (BRIDGTON)	BRIDGTON ELEMENTARY	C	NO
WRITING ACROSS THE CURRICULUM	SOUTH PORTLAND	SO. PORTLAND HIGH SCHOOL	C	NO
PROJECT SPICE	UNION 043 (MONMOUTH)	MONMOUTH ACADEMY	S	NO
THE PUBLICATIONS WORKSHOP	UNION 047 (BATH)	MORSE HIGH SCHOOL	C	NO
READING TO WRITE/WRITING TO READ	UNION 087 (VEAZIE)	JOHN R. GRAHAM SCHOOL	C	YES

Library

LIBRARY MEDIA CENTER	EUT	EDMUNDS CONSOLIDATED	C	NO
READING FOR PLEASURE	SAD 50 (THOMASTON)	ST. GEORGE ELEMENTARY	S	NO
LIBRARIES ALIVE VIDEO PROJECT	SOUTH PORTLAND	MAHONEY MIDDLE/FISHER	C	YES

Math

MATH FOR LIFE	BRUNSWICK	BRUNSWICK HIGH SCHOOL	C	NO
MAKING THE MOST OF TODAY'S DOLLAR	OLD TOWN	HERBERT GRAY SCHOOL	C	NO
P(ROBLEM) S(OLVING)	SAD 24 (VAN BUREN)	GATEWAY ELEMENTARY	S	YES
DIAGNOSTIC PRESCRIPTIVE ARITHMETIC	SAD 54 (SKOWHEGAN)	NORRIDGEWOCK CENTRAL	C	NO
SCHOOL MATH MANAGEMENT	SAD 54 (SKOWHEGAN)	MARGARET CHASE SMITH	C	YES
MATH	SAD 58 (KINGFIELD)	KINGFIELD ELEMENTARY	S	YES

PRESCRIPTIVE ARITHMETIC CLASSROOMS	SAD 59 (MADISON)	STARKS ELEMENTARY	C	NO
COMPUTATION SKILLS CENTER	SAD 60 (BERWICK)	NORTH BERWICK ELEMENTARY	C	NO
DIAGNOSTIC PRISCRIPTIVE ARITHMETIC	SAD 74 (NORTH ANSON)	FIVE ELEMENTARY SCHOOLS	S	NO
DIAGNOSTIC PRESCRIPTIVE ARITHMETIC	SAD 75 (TOPSHAM)	BOWDOINHAM COMMUNITY	C	YES
EMBRACING MATH WITH TLC	UNION 030 (LISBON FALLS)	MARION T. MORSE	C	NO

Middle School Curriculum

CORE	BIDDEFORD	BIDDEFORD JUNIOR HIGH	S	YES
IMPLEMENTING OF A MIDDLE SCHOOL	CSD 10/UNION 42 (READFIELD)	MARANACOOK COMMUNITY	C	YES
MARINE EDUCATION	DEER ISLE CSD	STONINGTON ELEMENTARY	C	YES
LEARNING STYLES	FREEPORT	FREEPORT MIDDLE SCHOOL	C	NO
COMPREHENSIVE COMPUTER INTEGRATION	FREEPORT	FREEPORT MIDDLE SCHOOL	C	NO
PROJECT CHALLENGE	SAD 15 (GRAY/NEW GLOUCESTER)	GRAY-NEW GLOU JR. HIGH	C	YES
NEEDS OF ADOLESCENCE	SAD 58 (KINGFIELD)	KINGFIELD ELEMENTARY	C	YES
GEORGES BANK FISHING	SAD 63 (EAST HOLDEN)	HOLBROOK SCHOOL	C	YES

Reading

PEER	AUGUSTA	LINCOLN	C	YES
SUMMER PAPERBACK BOOK CLUB	BANGOR	DOWNEAST ELEMENTARY	C	YES
A HISTORY-LANG ARTS CONNECTION	CARIBOU	CARIBOU HIGH SCHOOL	C	NO
BIG BOOKS/SHARED READING	FALMOUTH	PLUMMER-MOTZ SCHOOL	C	YES
PROJECT READ	GORHAM	GORHAM HIGH SCHOOL	S	NO
REAL READING	OLD TOWN	JEFFERSON STREET	C	YES
BOOK SHARING	SAD 04 (GUILFORD)	PISCATAQUIS COMMUNITY HS	C	NO
DEVELOPMENTAL READING PROGRAM	SAD 28 (CAMDEN)	ELM ST. & ROCKPORT ELEM	C	NO
READING WITH LITERATURE	SAD 46 (DEXTER)	DEXTER PRIMARY SCHOOL	C	NO
BOOKS AND THEIR BEGINNINGS PROGRAM	SAD 47 (OAKLAND)	ATWOOD/TAPLEY	S	YES
PROJECT PASS	SAD 57 (WATERBORO)	MASSABESIC JUNIOR HIGH	C	NO
ABC - READ TO ME	SAD 64 (EAST CORINTH)	BRADFORD & HUDSON ELEM	S	NO
PROJECT THINK	SAD 77 (MACHIAS)	CUTLER ELEMENTARY	S	NO
"CALDECOTT READING PROGRAM"	UNION 087 (ORONO)	ASA C. ADAMS	C	YES
LOVING LITERATURE	UNION 091 (BUCKSPORT)	LUMAN WARREN SCHOOL	C	NO
"SHARED READING" LAB	UNION 098 (TREMONT)	TREMONT CONSOLIDATED	C	NO
BREAKING THE BARRIER	WATERVILLE	WATERVILLE JUNIOR HIGH	C	NO
ONE STEP BEYOND	WATERVILLE	BROOKSIDE ELEMENTARY	C	NO

School/Community Relations

MYTHOLOGY AND THE ADOLESCENT	AUBURN	EDWARD LITTLE HIGH	C	NO
PROJECT LATCH-KEY	CARIBOU	CARIBOU JR. HIGH SCHOOL	C	NO
CLASSROOMBASED/HOME READING PROGRAM	GORHAM	WHITE ROCK ELEMENTARY	C	YES
BUSINESS-SCHOOL PARTNERSHIPS	SAD 58 (KINGFIELD)	KINGFIELD, PHILLIPS	S	YES
P.A.S.S. VOLUNTEER PROGRAM	SAD 68 (DOVER-FOXCROFT)	MORTON AVE & MAYO ST ELEM	S	YES
"SEASONED WITH AGE"	SAD 71 (KENNEBUNK)	JR HIGH OF THE KENNEBUNKS	C	NO
THE PARENTING WORKSHOP	SAD 72 (FRYEBURG)	ANNIE HEALD SCHOOL	C	NO

Science

SCIENCE FOR THE MIDDLE SCHOOLS	BANGOR	FIFTH STREET MIDDLE	S	YES
BREWER HS-EARTH SCIENCE	BREWER	BREWER HIGH SCHOOL	C	NO
OUR COASTAL ENVIRONMENT	LAMOINE	LAMOINE CONSOLIDATED	C	NO
HANDS-ON ELEMENTARY SCIENCE PROGRAM	LINCOLNVILLE	LINCOLNVILLE CENTRAL	C	NO
SOLAR GREENHOUSE DESIGN	LISBON	LISBON HIGH SCHOOL	C	YES
COASTAL NATURAL RESOURCES	MONHEGAN	MONHEGAN SCHOOL	C	NO
MINEX: A LAB MANUAL PRIMER	MT. DESERT	MT. DESERT ISLAND HIGH	C	NO
BIOVIDEO FEEDBACK!	NEWCASTLE	LINCOLN ACADEMY	C	NO
SCIENCE, TECHNOLOGY AND SOCIETY	RUMFORD	RUMFORD HIGH	C	YES
COMPUTER ASSISTED STUDY, FORE RIVER	SAD 06 (BUXTON)	BONNY EAGLE HIGH SCHOOL	C	NO
BOTANICAL GARDEN & HERBARIUM	SAD 07 (NORTH HAVEN)	NORTH HAVEN COMMUNITY	C	NO
SCIENCE UNDER GLASS	SAD 07 (NORTH HAVEN)	NORTH HAVEN COMMUNITY	C	YES
SCIENCE CURRICULUM UNIFICATION	SAD 09 (FARMINGTON)	MT. BLUE HIGH SCHOOL	C	YES
SCIENCE CURRICULUM	SAD 32 (ASHLAND)	ASHLAND HIGH	S	NO
SCIENCE DEMONSTRATION	SAD 41 (MILO)	PENQUIS VALLEY HIGH	C	NO
A PLAN FOR SCIENCE EXCELLENCE	SAD 44 (BETHEL)	ANDOVER ELEMENTARY	S	YES
ENVIRONMENTAL STUDIES PROPOSAL	SAD 48 (NEWPORT)	NOKOMIS REGIONAL HIGH	S	YES
1985 MAINE SCIENCE OLYMPIAD	SAD 51 (CUMBERLAND CENTER)	GREELY HIGH SCHOOL	S	NO
GLACIAL EFFECTS: SANDY RIVER VALLEY	SAD 54 (SKOWHEGAN)	CENTRAL ELEMENTARY	C	NO
JHSK'S SCIENCE ISLAND	SAD 71 (KENNEBUNK)	JR. HIGH OF THE KENNEBUNKS	C	NO
ECOLOGICAL HISTORY	SANFORD	SANFORD JUNIOR HIGH	C	NO
SCIENCE AND READING	UNION 029 (MINOT)	MINOT CONSOLIDATED	C	NO
LABORATORY DEVELOPMENT	UNION 044 (SABATTUS)	SABATTUS ELEMENTARY	C	YES
GREENHOUSE	UNION 087 (ORONO)	ASA C. ADAMS SCHOOL	S	YES
TIDE POOL SCHOOL	UNION 091 (ORLAND)	ORLAND CONSOLIDATED	C	NO
ENVIRONMENTAL EDUCATION	UNION 102 (MACHIAS)	ROSE GAFFNEY ELEMENTARY	S	NO
SCIENCE, TECHNOLOGY & SOCIETY	WELLS-OGUNQUIT	WELLS HIGH SCHOOL	C	NO

Social Studies

DEBATE: AMERICAN SOCIAL HISTORY	BIDDEFORD	BIDDEFORD HIGH SCHOOL	C	NO
CULTURAL PERSPECTIVES	CAPE ELIZABETH	CAPE ELIZABETH HIGH	C	NO
MAINE INDIAN DAY	LEWISTON	MONTELLO SCHOOL	S	YES
"OUR COUNTRY THROUGH LITERATURE"	SAD 06 (BUXTON)	BONNY EAGLE JR. HIGH	C	NO
ISLAND HISTORICAL INVESTIGATIONS	SAD 07 (NORTH HAVEN)	NORTH HAVEN COMMUNITY	C	NO
ACADIAN HERITAGE	SAD 27 (FORT KENT)	ST. FRANCIS ELEMENTARY	C	NO
ARCHAEOLOGY & ANTHROPOLOGY OF MAINE	SAD 50 (THOMASTON)	GEORGES VALLEY HIGH	C	NO
THROUGH OUR WORDS AND EYES	SAD 57 (WATERBORO)	SHAPLEIGH MEMORIAL SCHOOL	C	NO
CARRABEC ARCHAEOLOGICAL PROJ.	SAD 74 (NORTH ANSON)	CARRABEC HIGH	C	NO
PEOPLE MAKING A TOWN GO	SANFORD	EDISON SCHOOL	C	NO
DESIGN OF A COMMUNITY	SOUTH PORTLAND	SOUTH PORTLAND HIGH	C	NO
MULTI-DISCIPLINARY ARCHAEOLOGY	UNION 093 (BLUE HILL)	GEORGE STEVENS ACADEMY	C	NO
HISTORY THROUGH POSTCARDS	WATERVILLE	WATERVILLE HIGH SCHOOL	C	NO
UNDERSTANDING CULTURAL DIVERSITY	WELLS-OGUNQUIT	WELLS JUNIOR HIGH SCHOOL	C	YES
ARCHITECTURAL HERITAGE OF YORK	YORK	YORK HIGH SCHOOL	C	YES

Special Education

MEMORY EXPANSION (M.E.)	ARUNDEL	MILDRED L. DAY MEMORIAL	C	YES
CLASS: LANGUAGE IMPAIRED STUDENTS	AUBURN	ALL SCHOOLS IN AUBURN	S	YES
TRAINING FOR PARENTS AND TEACHERS	AUBURN	AUBURN SCHOOL SYSTEM	S	NO
PORTABLE MICROCOMPUTER	BRUNSWICK	COFFIN SCHOOL	C	YES
PROGRAMS: HEARING IMPAIRED STUDENTS	FREEPORT	MORSE STREET SCHOOL	C	YES
HANDICAPPED TRAINING TAPES	KEN-A-SET ASSOC	HILLTOP SCHOOL	C	NO
PLANNING GRANT:VOC.ED./SP.ED.	LEWISTON	LEWISTON VOCATIONAL CTR.	S	YES
"LITE TOUCH" COMMUNICATION	PORTLAND	DEERING HIGH SCHOOL	C	YES
PARENT INVOLVEMENT & TRAINING	PORTLAND	PORTLAND HIGH SCHOOL	C	NO
MICROSWITCH TECHNOLOGY	PORTLAND	RIVERTON ELEMENTARY	C	NO
ART RESIDENCY	PRIVATE	THE SPURWINK SCHOOL	C	NO
COMPUTERS & PREVOCATIONAL PROGRAM	SAD 05 (ROCKLAND)	ROCKLAND DISTRICT HIGH	C	YES
MULTISENSORY READING	SAD 17 (SOUTH PARIS)	OXFORD HILLS JR. HIGH	C	NO
COMPUTERS FOR SPECIAL ED STUDENTS	SAD 40 (WALDOBORO)	MILLER GRADE SCHOOL	C	NO
PROJECT LIFE SKILLS	SAD 52 (TURNER)	GREENE CENTRAL SCHOOL	C	NO
SPECIAL EDUCATION COMPUTERS	SAD 60 (BERWICK)	DISTRICT-WIDE	S	YES
TEAM-TEACHING SOCIAL SKILLS	SAD 67 (LINCOLN)	ELLA P. BURR	S	NO
SURVIVAL COMMUNICATION	SOUTH PORTLAND	MAHONEY MIDDLE SCHOOL	C	NO
RESOURCE CENTER	STATE	GOV. BAXTER SCH FOR DEAF	C	YES
PEER TUTORING	UNION 042 (MT. VERNON)	MT. VERNON ELEMENTARY	C	NO
VOLUNTEERS+TEACHERS+COMPUTERS!	UNION 042 (READFIELD)	READFIELD ELEMENTARY	C	YES
HUMAN LEARNING	UNION 104 (EASTPORT)	SHEAD HIGH SCHOOL	C	NO

Staff Development

ARUNDEL PILOT CERTIFICATION PROJECT	ARUNDEL	MILDRED L. DAY MEMORIAL	S	YES
TEACHER PREPARATORY INTERNSHIP	AUBURN	AUBURN SYSTEM	S	NO
"MASTER PLAN"	CSD 09 (ISLAND FALLS)	SO AROOSTOOK COMMUNITY	S	YES
COMPENSATION AND ASSESSMENT PLAN	FREEPORT	ALL SCHOOLS IN FREEPORT	S	NO
COACHING	LEWISTON	TEN SCHOOLS VOC CTR.	S	YES
PROJECT L.E.A.D.S.	SAD 06 (BUXTON)	ALL SCHOOLS IN SAD 6	S	YES
MODELS OF TEACHING	SAD 09 (FARMINGTON)	W.G. MALLETT SCHOOL	C	YES
ALTERNATIVE TEACHING	SAD 13 (BINGHAM)	MOSCOW PRIMARY	C	NO
DISTRICT TEACHER SUPPORT TEAM	SAD 21 (DIXFIELD)	DIRIGO HIGH	S	NO
ST. JOHN VALLEY 'IN/PRE' PROJECT	SAD 27 (FORT KENT)	ALL SCHOOLS IN SAD 27	S	NO
SCHOOL IMPROVEMENT	SAD 33 (ST. AGATHA)	DR. LEVESQUE/WISDOM HIGH	S	NO
TEACHERS HELPING TEACHERS	SAD 46 (DEXTER)	DEXTER REGIONAL HIGH	S	NO
ADMINISTRATION CERTIFICATION PILOT	SAD 47 (OAKLAND)	INTER-DIST COLLABORATIVE	S	NO
INSTRUCTIONAL LEADERSHIP INSTITUTE	SAD 51 (CUMBERLAND CENTER)	GREELY HIGH SCHOOL	S	NO
EFFECTIVE TEACHING TECHNIQUES	SAD 59 & 74 (MADISON)	ALL SCHOOLS IN EACH DIST	S	YES
LEADERSHIP SYMPOSIUM/SUPERINTENDENT	SAD 64 (EAST CORINTH)	DISTRICT WIDE	S	NO

SAD 67 CERTIFICATION PILOT PROJECT	SAD 67 (LINCOLN)	MATTANAWCOOK ACADEMY	S	NO
RESEARCH INTO PRACTICE	SAD 72 (FRYEBURG)	NEW SUNCOOK ELEMENTARY	C	NO
"WHO IS THAT KID, ANYWAY?"	SOUTH PORTLAND	SO PORTLAND HIGH	C	NO
SUBSTITUTE & VOLUNTEER TRAINING	UNION 030 (LISBON FALLS)	LISBON ELEMENTARY	S	NO
PROJECT RESEARCH	UNION 030 (LISBON FALLS)	LISBON/LISBON FALLS	S	NO

Vocational Education

MICROPROCESSOR INTERFACING	CARIBOU	CARIBOU REGIONAL VOC CTR.	C	NO
COMPUTERS IN AGRICULTURE	SAD 42 (MARS HILL)	CENTRAL AROOSTOOK HIGH	C	NO
COMPUTER ASSISTED DESIGN SYSTEM	UNION 113 (E. MILLINOCKET)	SCHENCK HIGH SCHOOL	C	YES